

Appendix E
Biopile Shut down Respiration Test



Memorandum

Subject: Biopile Shut down Respiration Test

To: Francisco Burgos, EHS Manager
Bristol Myers Squibb Manufacturing Company

From: Mark Bowen
Anderson, Mulholland & Associates, Inc.

Date: May 12, 2006

Anderson, Mulholland and Associates, Inc. (AMAI) completed a shut down respiration test at the biopile at the BMS facility in Humacao according to the guidelines in the Building 5 Interim Corrective Measure Work Plan, August 2004 and further clarified in the Biopile Monitoring Plan, March 2006. The shut down respiration test was performed between 11 and 12 April 2006. Details of the equipment used and the layout of the monitoring probes are also included in the Biopile Monitoring Plan.

Prior to the respiration test, excavation and piling of material was completed on 1 March 2006. Soil gas monitoring probes were installed in the biopile between 16 and 24 March. Blowers were in place and switched on by 3 April. Initial balancing of air flow was completed on 4 April 2006

The objectives of this memo are to give a brief background on the purpose of the test, to provide a summary of the activities performed during the test and to present the results of the monitored gases.

Respiration Test Objectives

The objectives of the respiration test were as follows:

- To give a clear indication by the change in measured gas values that an active aerobic microbe population is present in the biopile.
- To gather data to assess biopile performance.

The principle of the shut down respiration test is that the aerobic microbes that degrade the hydrocarbons in the biopile consume oxygen and produce CO₂. The oxygen is provided by the air from the blower. With the blower switched on oxygen is continually being replenished and measured oxygen will be close to its atmospheric level (21%) ranging from 15 to 20 % and measured CO₂ will be less than 5%. However for clear evidence that biodegradation is occurring the blower is switched off for up to 48 hours. During this period both oxygen and CO₂ are measured. If the aerobic microbe population is healthy, without replenishment of air the measured oxygen level is expected to drop and the CO₂ level to increase. The rate at which the oxygen decreases gives an indication of the rate at which the hydrocarbons are being broken down.

Shut Down Respiration Test Activities

Initial gas readings were taken from the twelve monitoring probes on April 11 between 08:37 and 09:19 prior to switching off the blower at 09:30. Further readings were then taken at 2 hour intervals up to 8 hours after switching off the blower. Two further readings were then taken on April 12 at 23.5 and 27.5 hours after switching off the blower. At 27.5 hours oxygen levels were no longer decreasing and the test was stopped. The blower was switched back on after elapsed time 28.5 hours.

Results

Graphs are attached showing the measured oxygen and CO₂ values taken from the twelve monitoring probes during the test. A graph showing the average of all twelve monitoring probes is also attached. A spreadsheet showing the raw data for both oxygen and CO₂ is attached.

Results from probes SG7 and SG8 are anomalous. In all other probes oxygen values decrease up to elapsed time 23.5 hours of the test from an initial range of 15.8 to 20.9 % to a final range of 1.0 to 9.2 %. Corresponding CO₂ values increase from a range of 0.0 to 3.6 % to a range of 3.8 to 14.2 %. These results are a clear indication of a healthy aerobic microbe population. The readings at elapsed time 27.5 hours do not show a further decrease in oxygen. Therefore, during this test oxygen limiting conditions for aerobic microbe activity were reached some time between 23.5 and 27.5 hours after the blower was switched off.

At probe SG8 there was no discernable trend in measured oxygen values which may be due to the heterogeneity of the soil in the region of the probe. At probe SG7 there was an initial decrease from 20.9 to 16.9 % and all further monitored oxygen values were between 16 and 17 %. This may be due to a less active microbe population in the vicinity of SG7.

The respiration test demonstrates that there is significant biological activity in the biopile. The concurrent consumption of oxygen and production of CO₂ evidences aerobic metabolism, suggesting active bioremediation. The data from the respiration test can be used to evaluate biopile performance as the remediation proceeds.

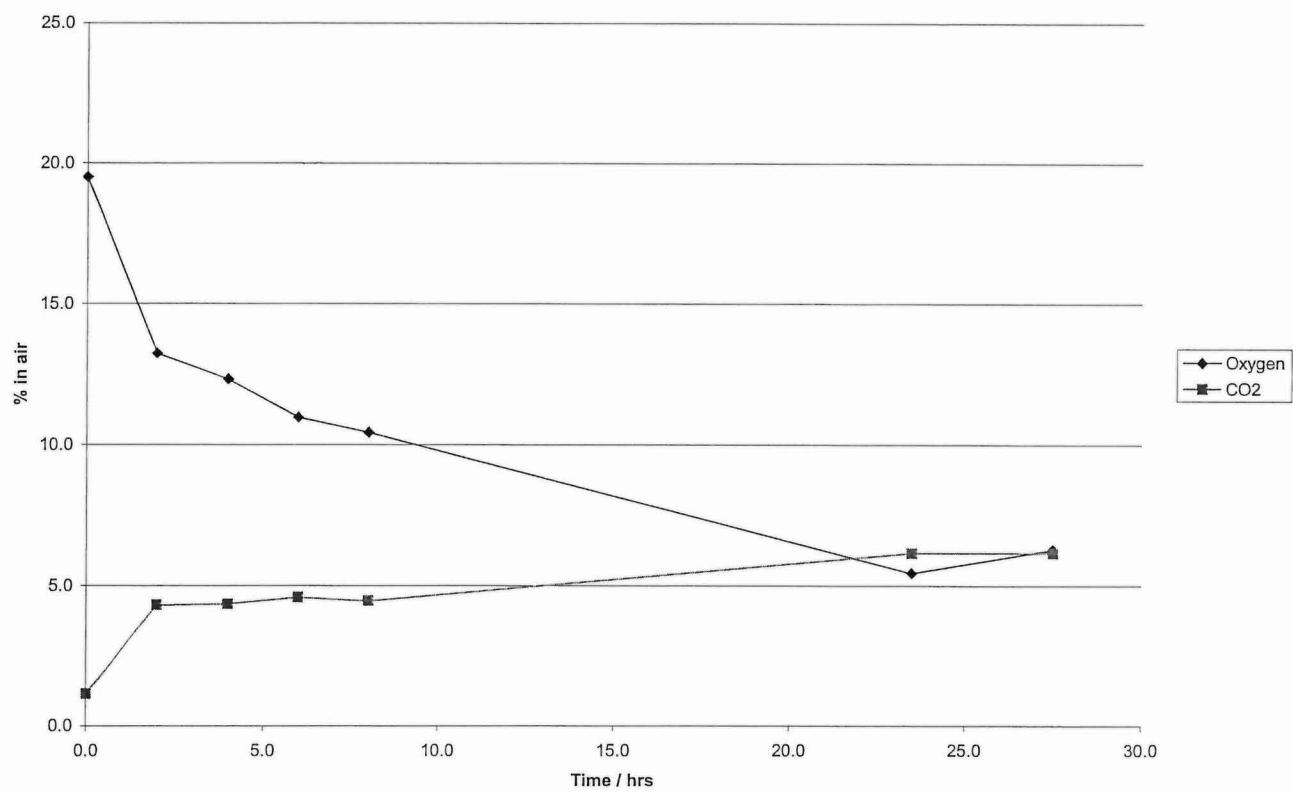
Biopile Oxygen Shutdown Respiration Test Monitoring Results
Bristol Myers Squibb
Humacao, P.R.

Location	Baseline %O2	Hour 2 %O2	Hour 4 %O2	Hour 6 %O2	Hour 8 %O2	Hour 23.5 %O2	Hour 27.5 %O2
SG-1	18.2	10.2	9.0	7.4	5.6	1.0	1.3
SG-2	15.8	11.5	11.7	11.4	10.7	2.6	3.7
SG-3	20.9	15.7	14.0	12.5	9.7	2.0	2.9
SG-4	20.9	17.2	16.8	16.5	14.6	9.1	14.7
SG-5	19.0	13.9	11.0	8.9	5.6	1.3	1.2
SG-6	19.0	9.1	6.6	5.7	4.5	2.9	3.2
SG-7	20.9	16.9	16.1	16.8	16.4	16.4	16.4
SG-8	15.9	2.8	8.0	2.5	14.6	8.4	2.7
SG-9	20.9	17.8	16.4	16.4	14.3	8.3	8.3
SG-10	20.9	13.9	11.3	9.6	7.5	2.3	2.1
SG-11	20.9	16.4	14.1	12.1	10.0	2.1	3.1
SG-12	20.9	13.6	13.0	12.0	11.9	9.2	15.9
average	19.5	13.3	12.3	11.0	10.5	5.5	6.3

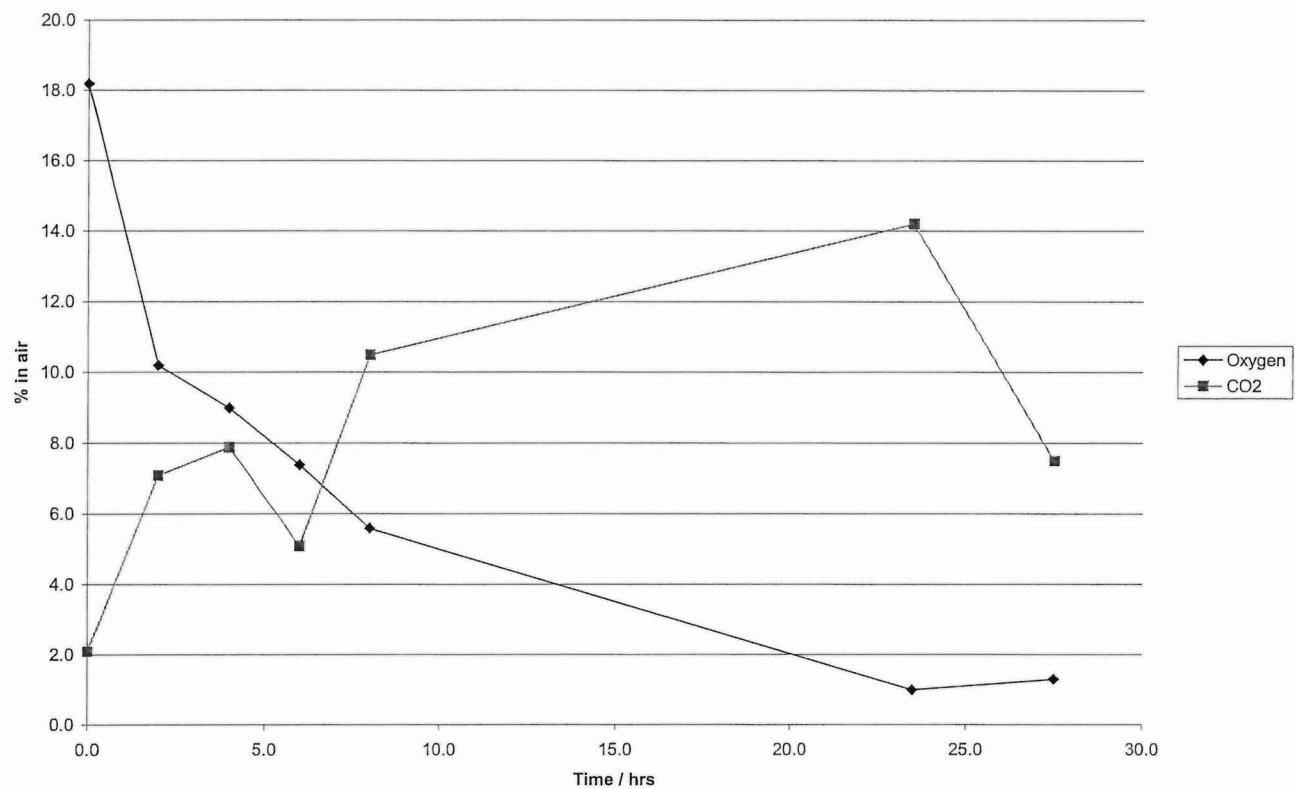
Biopile CO₂ Shutdown Respiration Test Monitoring Results
Bristol Myers Squibb
Humacao, P.R.

Location	Baseline %CO ₂	Hour 2 %CO ₂	Hour 4 %CO ₂	Hour 6 %CO ₂	Hour 8 %CO ₂	Hour 23.5 %CO ₂	Hour 27.5 %CO ₂
SG-1	2.1	7.1	7.9	5.1	10.5	14.2	7.5
SG-2	3.6	6.5	5.9	5.4	5.2	5.9	4.3
SG-3	0.3	0.9	1.2	1.4	1.9	4.0	4.6
SG-4	0.0	0.8	1.1	1.3	2.2	4.6	3.1
SG-5	1.6	3.3	3.9	4.0	5.2	6.9	14.8
SG-6	1.3	6.2	6.8	6.8	6.9	6.3	6.6
SG-7	0.0	2.7	3.1	1.6	2.9	2.7	2.7
SG-8	4.0	15.7	12.9	13.7	6.3	11.4	14.0
SG-9	0.0	0.6	2.5	1.1	1.8	4.3	4.9
SG-10	0.2	2.1	1.0	3.0	3.6	4.4	4.6
SG-11	0.1	0.9	1.2	2.8	2.0	3.8	4.3
SG-12	0.5	5.0	4.8	9.0	5.1	5.6	2.7
average	1.1	4.3	4.4	4.6	4.5	6.2	6.2

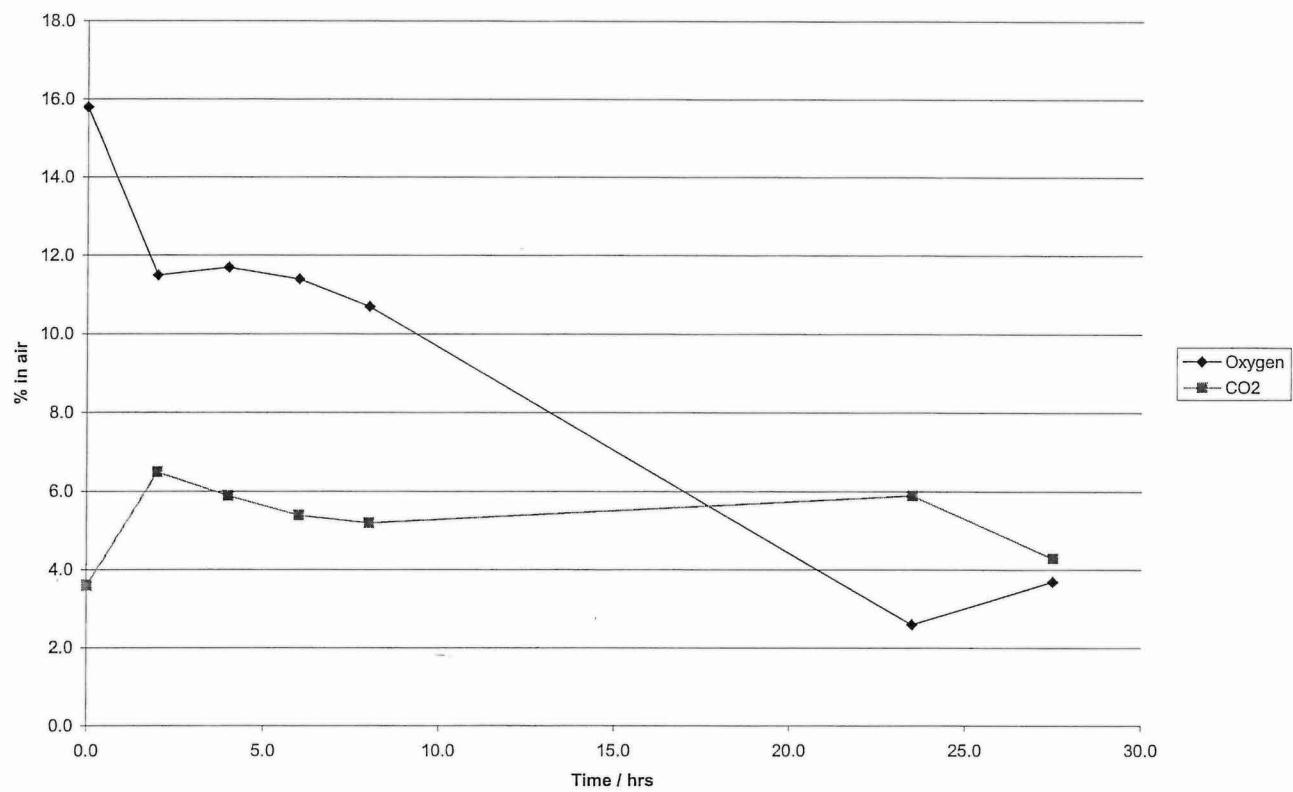
Average of O₂ and CO₂ Levels



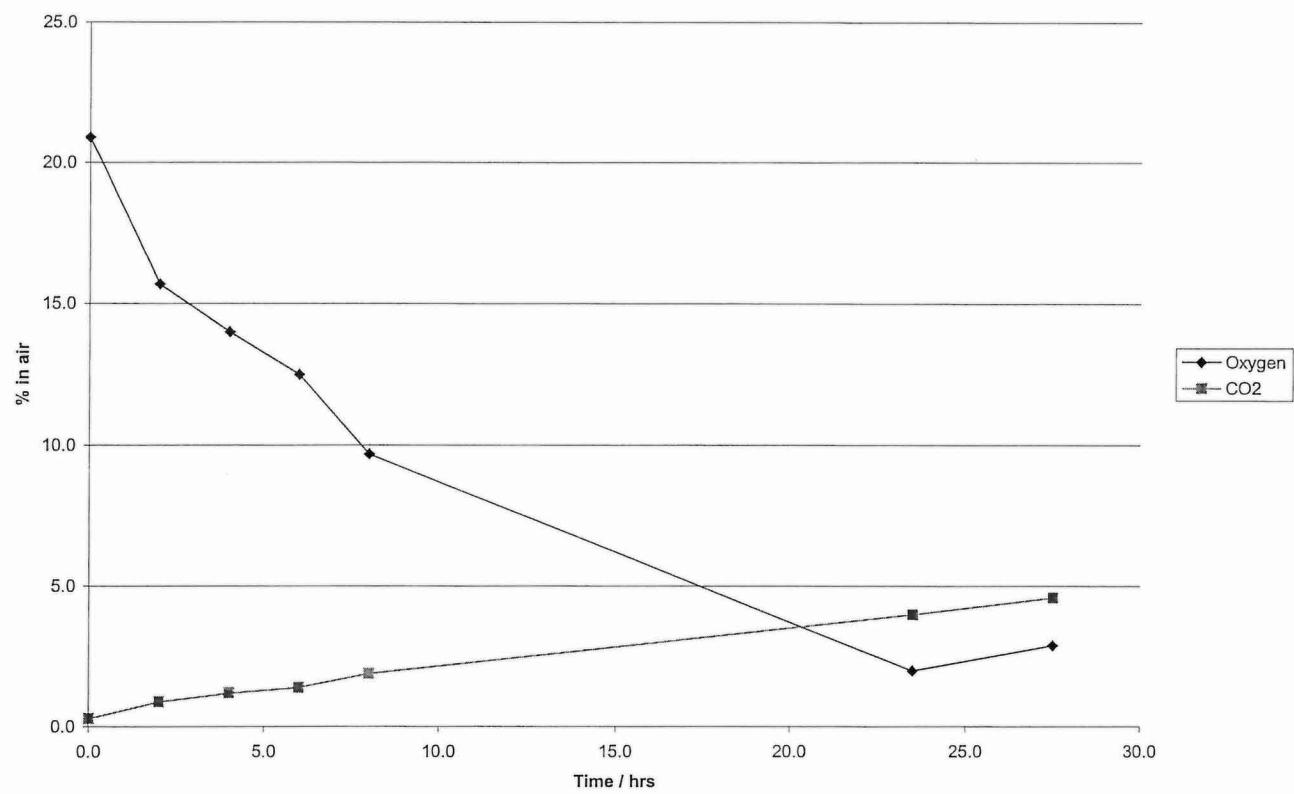
SG1 Oxygen and CO₂ levels during shut down test



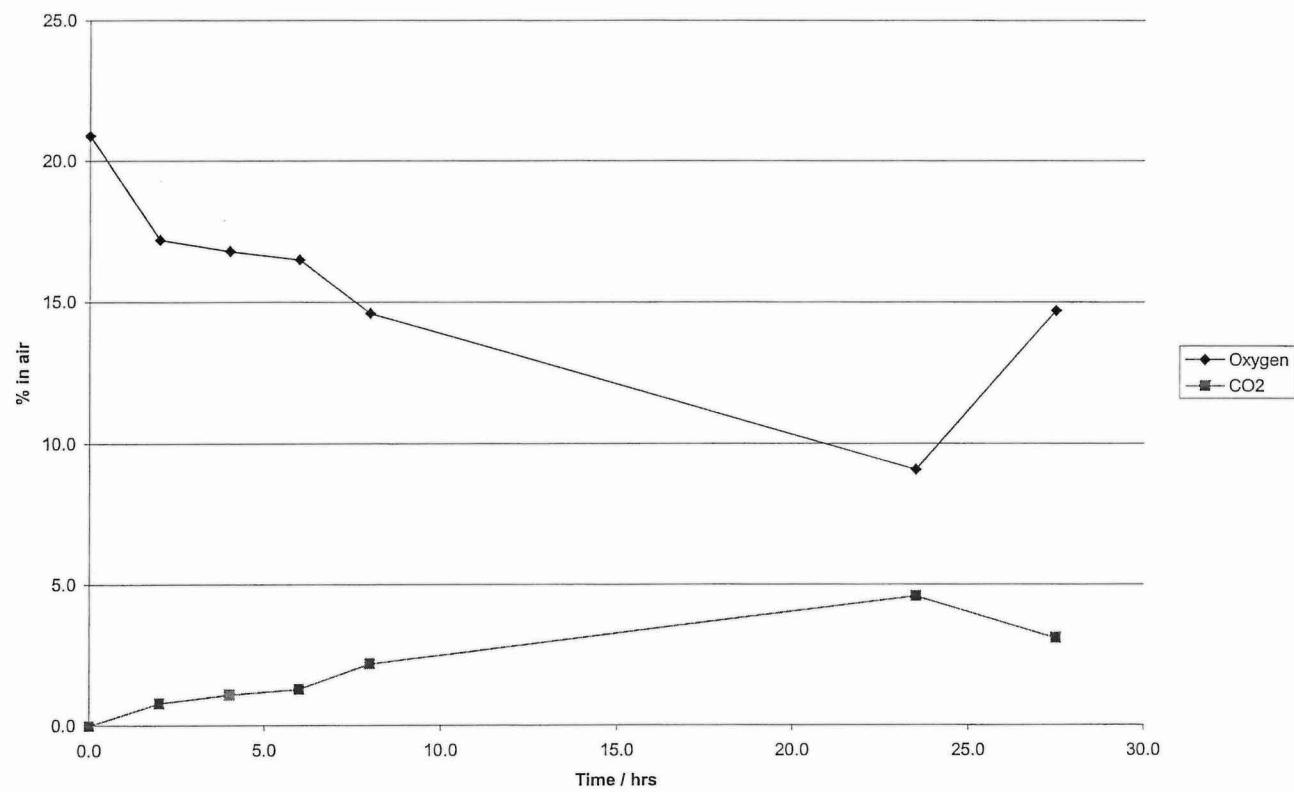
SG2 Oxygen and CO₂ levels during shut down test



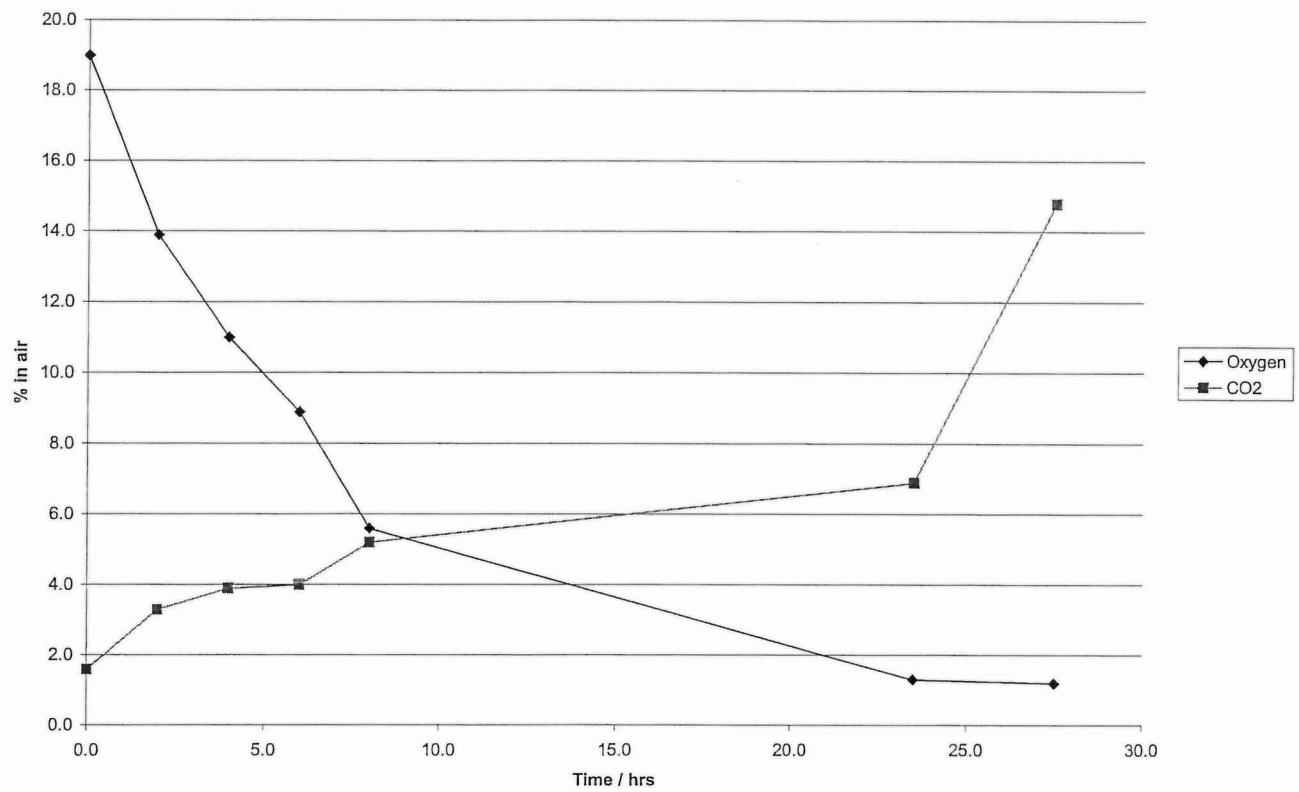
SG3 Oxygen and CO₂ levels during shut down test



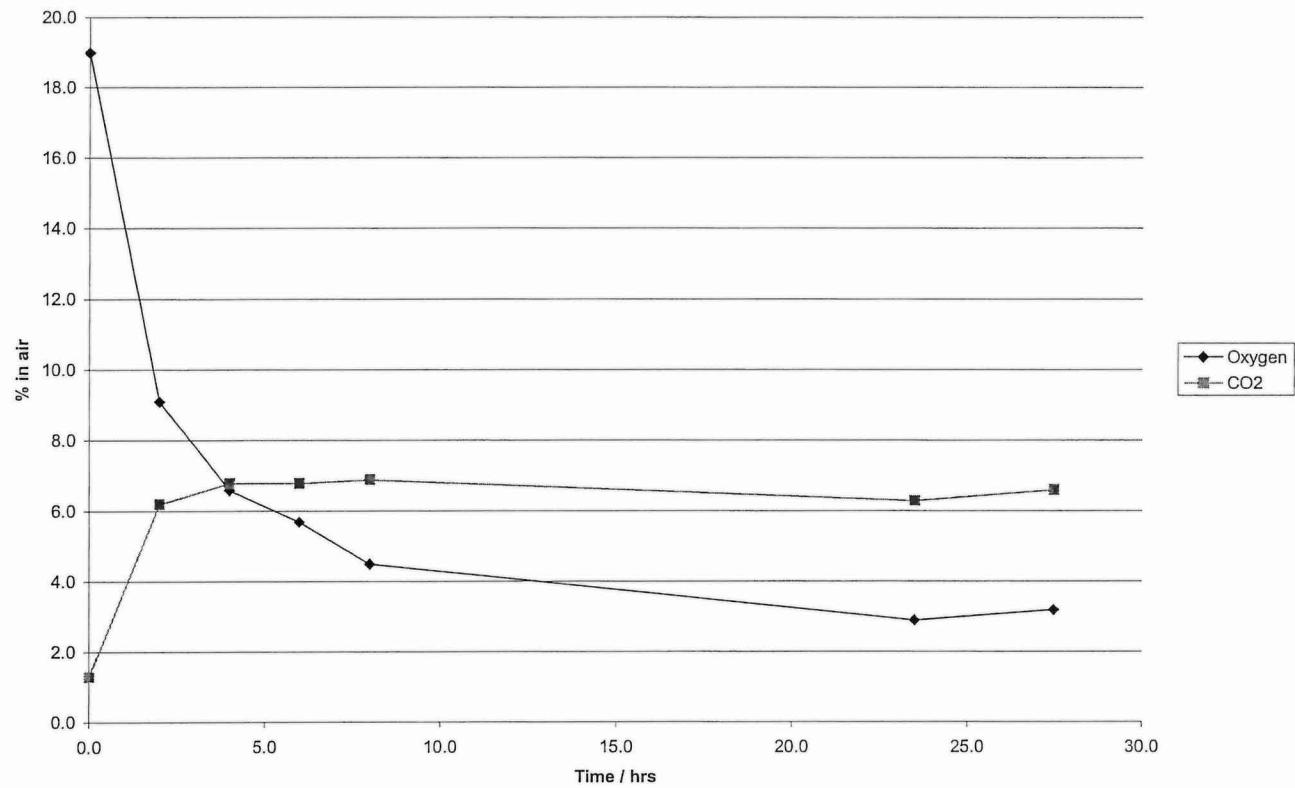
SG4 Oxygen and CO₂ levels during shut down test



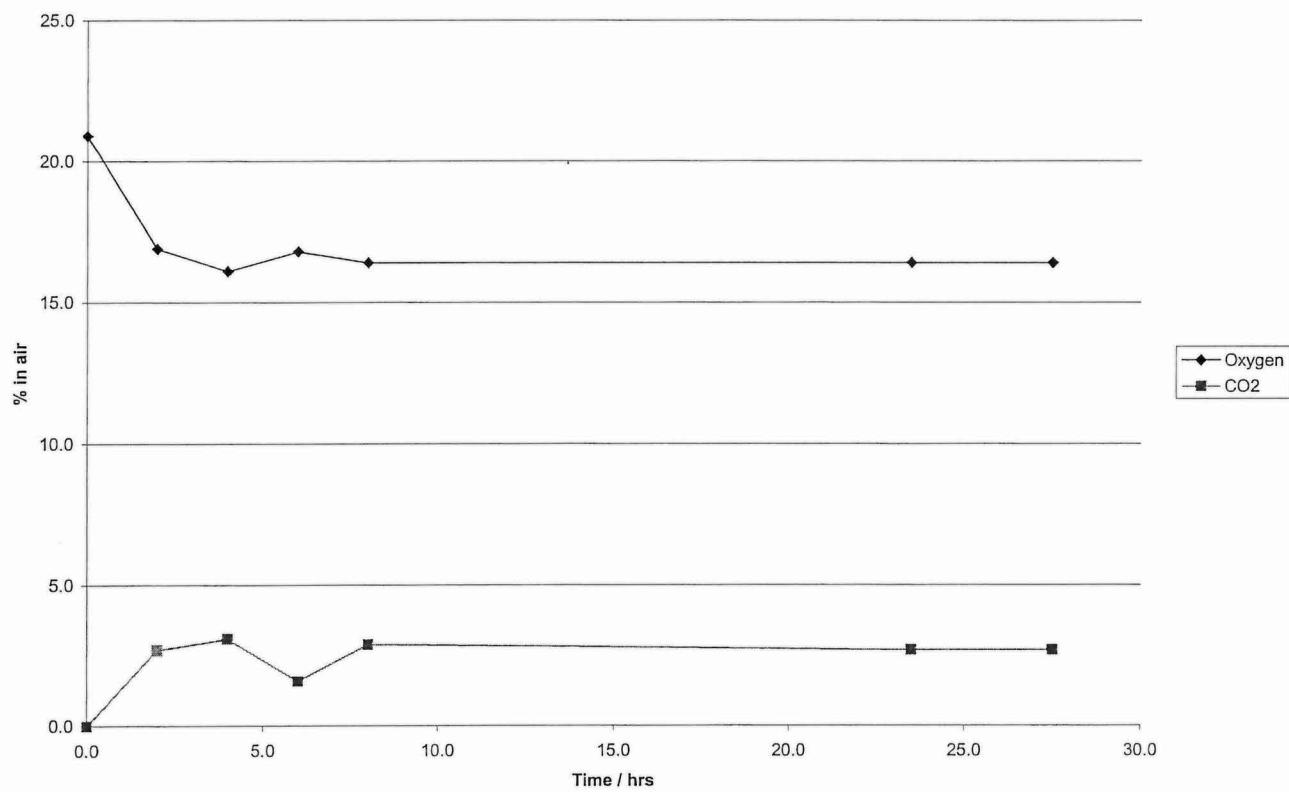
SG5 Oxygen and CO₂ levels during shut down test



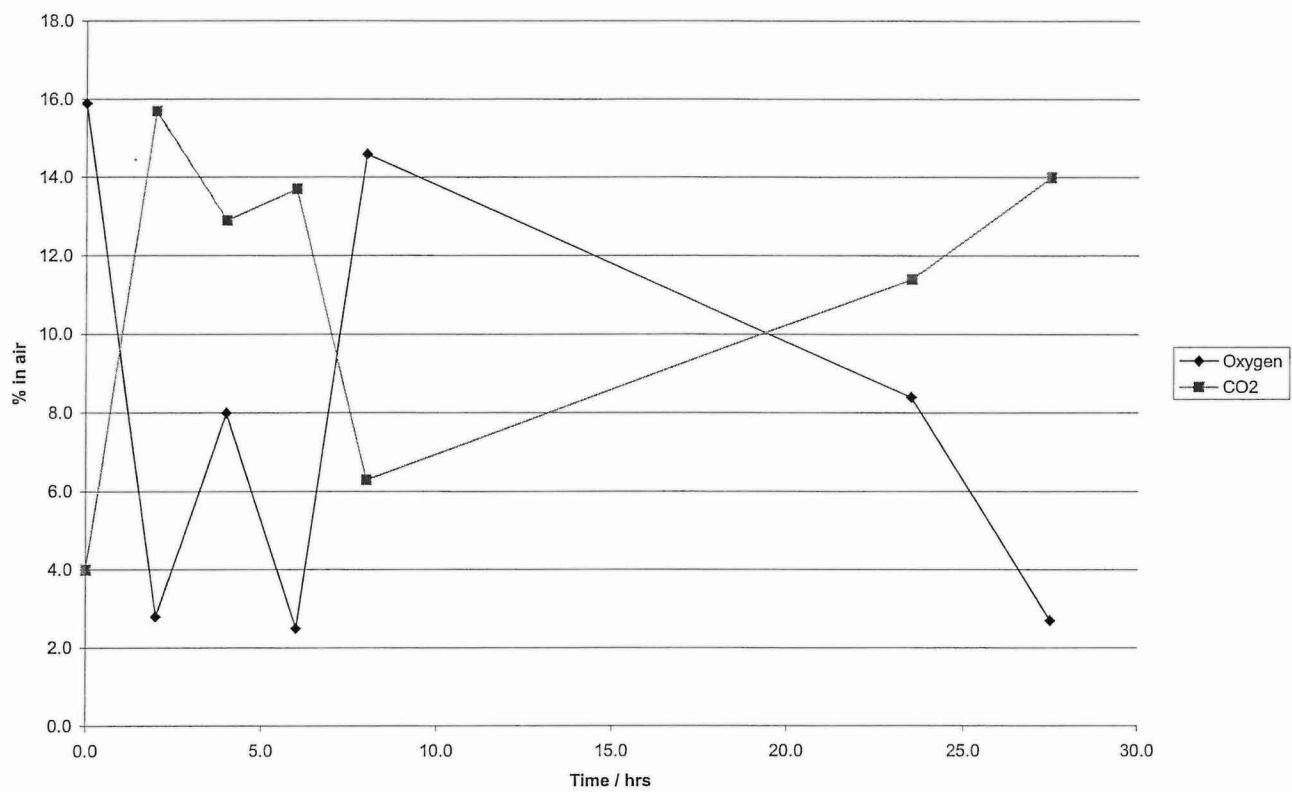
SG6 Oxygen and CO₂ levels during shut down test



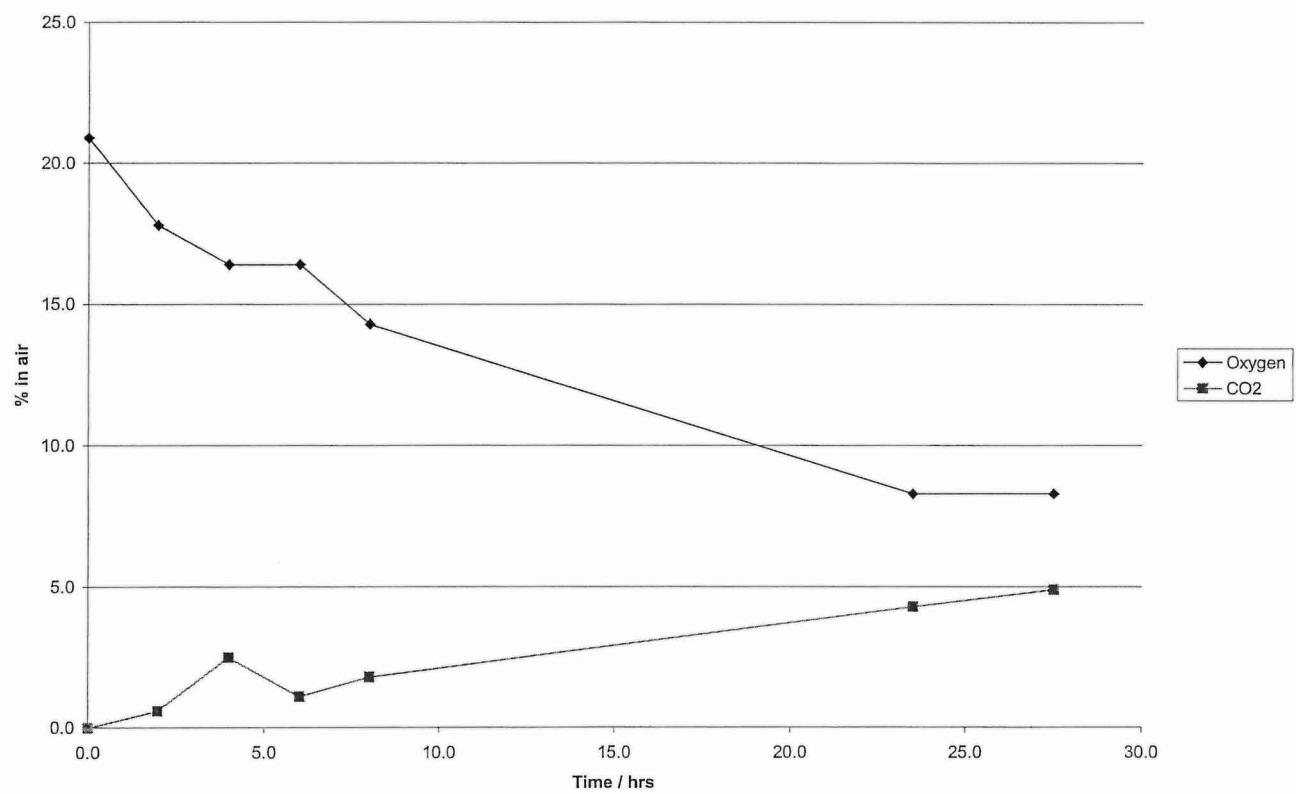
SG7 Oxygen and CO₂ levels during shut down test



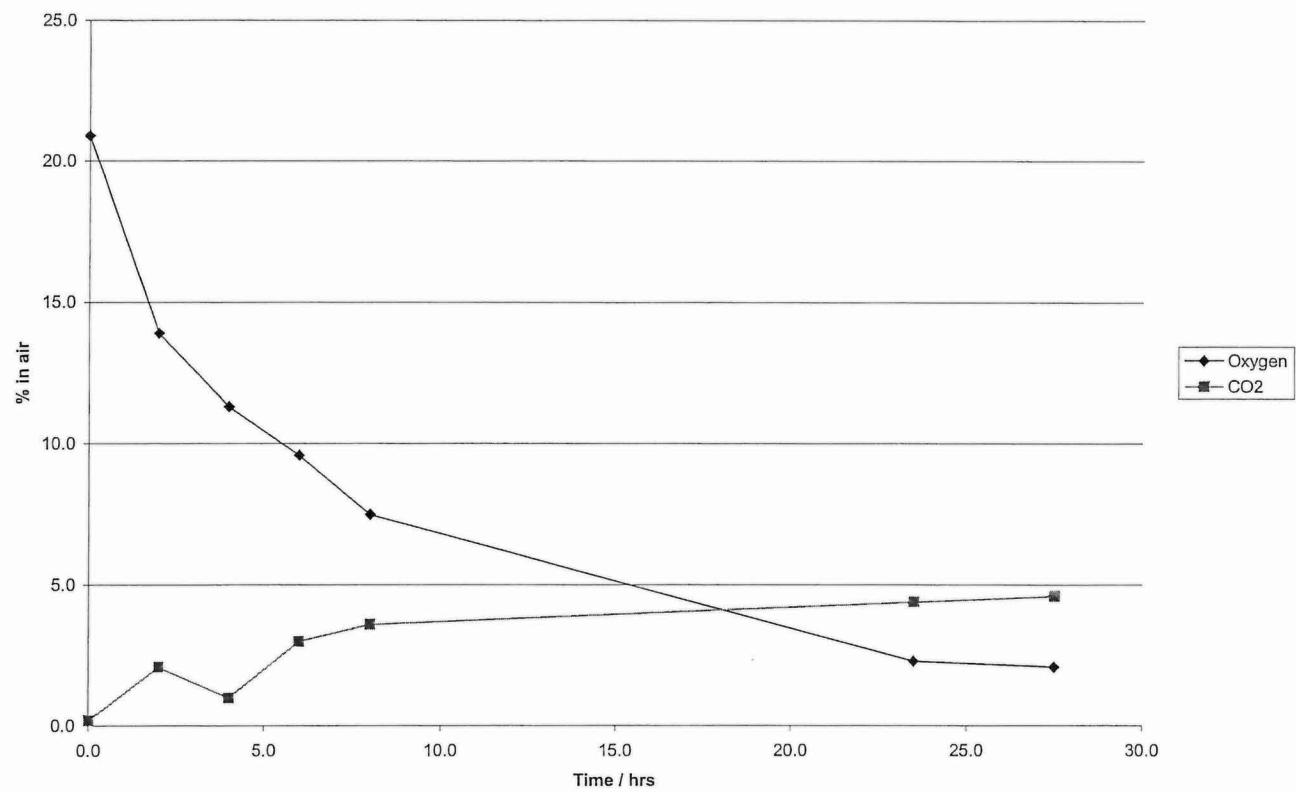
SG8 Oxygen and CO₂ levels during shut down test



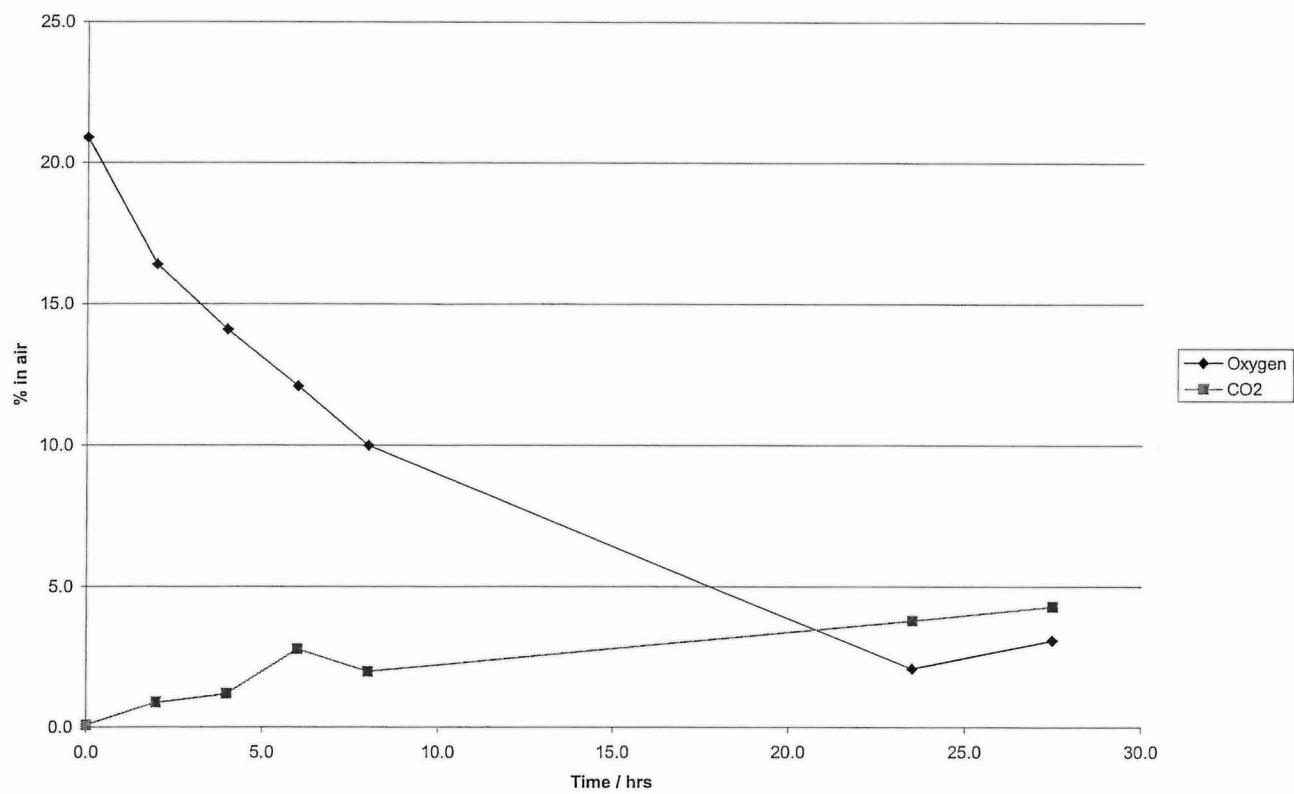
SG9 Oxygen and CO₂ levels during shut down test



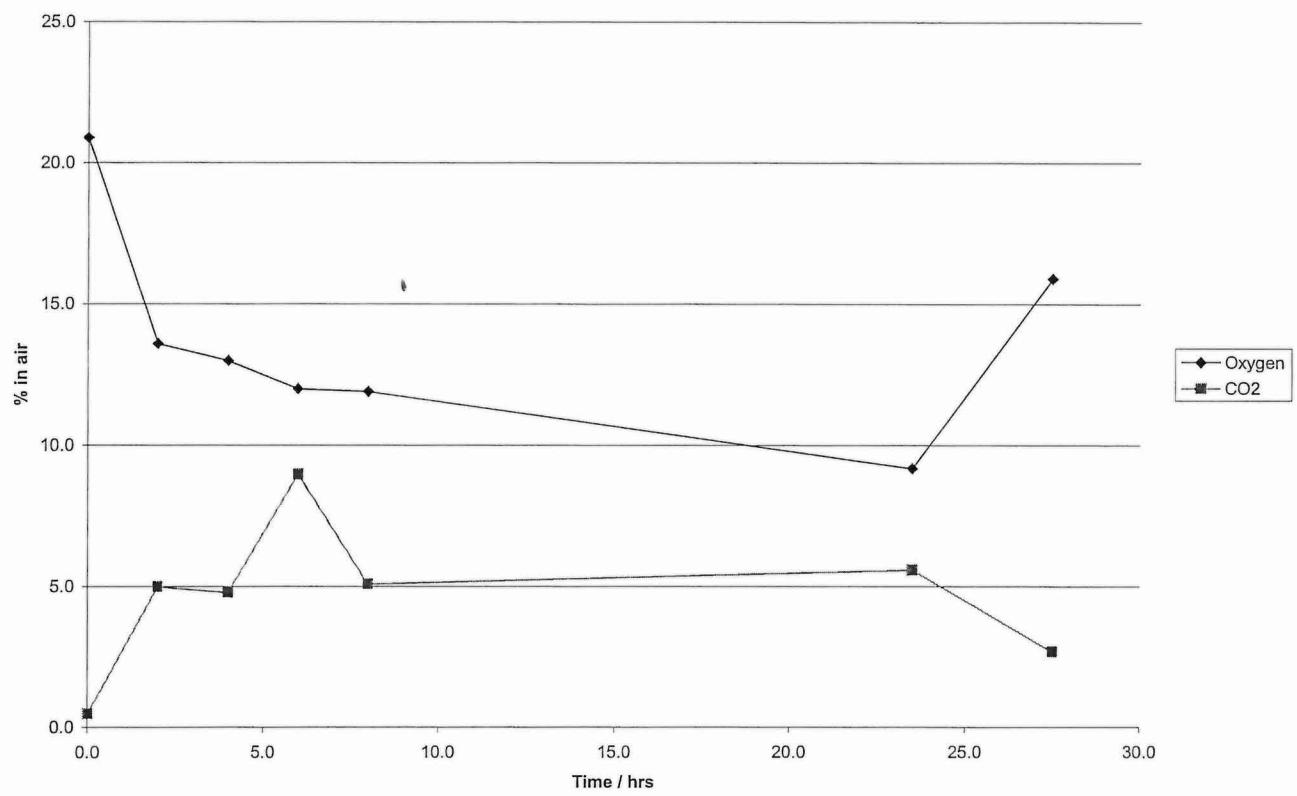
SG10 Oxygen and CO₂ levels during shut down test



SG11 Oxygen and CO₂ levels during shut down test

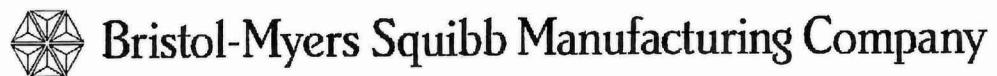


SG12 Oxygen and CO₂ levels during shut down test



Appendix F

Biopile Monitoring Plan



Biopile Monitoring Plan

***Bristol-Myers Squibb
Manufacturing Company
Humacao, Puerto Rico***

March 2006



Table of Contents

1.0	Introduction	1
2.0	Monitoring Plan Objective	1
3.0	Biopile Design and Operation.....	1
4.0	Start up Monitoring and Testing.....	3
4.1	Air Flow Balancing.....	3
4.2	Oxygen Measurement.....	4
4.3	Shutdown Respiration Test	5
5.0	Routine Biopile Monitoring and Testing.....	6
5.1	Visual Inspections	6
5.2	Soil Moisture Measurement.....	7
5.3	Soil Gas Monitoring	7
5.4	Air Flow Rate Measurements	8
5.5	Ambient Air Monitoring	8
5.6	Performance Evaluation	8

Figure

Figure 1 Biopile Sample Probe Locations

Forms

- | | |
|--------|---------------------------------------|
| Form 1 | Biopile Air Flow Rate Monitoring Form |
| Form 2 | Oxygen Concentration Balancing Form |
| Form 3 | Soil Gas Monitoring Form |
| Form 4 | Biopile Visual Inspection Form |
| Form 5 | Soil Moisture Monitoring Form |
| Form 6 | Ambient Air Monitoring Form |

Appendices

- | | |
|------------|---|
| Appendix A | Anemometer Users Manual |
| Appendix B | Multi-Gas Detector Users Manual |
| Appendix C | Soil Moisture Measuring System Users Manual |

1.0 *Introduction*

This document presents a monitoring plan for the ex-situ bioremediation facility (“biopile”) that was constructed as part of an Interim Corrective Measure (ICM) at the Bristol-Myers Squibb Manufacturing Company (BMSMC) facility in Humacao, Puerto Rico. The ICM is being conducted at the “Building 5 Area” which has been designated by the U.S. Environmental Protection Agency (EPA) as Solid Waste Management Unit No. 20. The ICM is part of a RCRA Corrective Action Program being implemented at the Humacao facility in accordance with the terms of BMSMC’s RCRA Permit.

2.0 *Monitoring Plan Objective*

The objective of this document is to establish procedures that will be used to perform visual inspection of the biopile and to monitor biopile operation. Monitoring data gathered in accordance with this plan will enable BMSMC to assess the effectiveness of the soil treatment process, to identify conditions which may impede optimum soil treatment, and to provide an indication of the timeframe for achievement of soil treatment performance standards. Section 3 of this document provides a brief description of the interim corrective measure and the design and operation of the biopile. Section 4 contains a description of biopile startup procedures. Section 5 contains details of the routine inspection and monitoring activities that will be employed throughout the operational lifetime of the biopile.

3.0 *Biopile Design and Operation*

The biopile was constructed at the BMSMC facility in order to provide on-site treatment of impacted soil excavated from an area referred to as Area A which is located to the east of Building 5. Approximately 1,600 cubic yards of soil impacted with elevated levels xylene, ethylbenzene, and methyl isobutyl ketone (MIBK) was excavated and placed on the biopile treatment cell. The treatment cell consists of a low permeability liner, a leachate collection system, and a continuous berm surrounding the soil pile. The pile is equipped with an aeration system and is covered by a semi-permeable cover system. The biopile is eight feet high and has approximate dimensions of 120 ft by 80 ft.

Twelve soil gas probes are installed within the biopile. Six of the probes are installed at a depth of 4 ft below the top of the pile and six at a depth of 7 ft below the top of the pile. The locations of the soil gas probes, designated as SG-1 through SG-12, are presented in Figure 1. The soil gas probes allow monitoring of levels of O₂, CO₂, flammable gases, volatile organic compounds, and H₂S within the biopile. The probes consist of 4-inch slotted plastic tubes. One end is blanked and the other has a quick fit connection to a length of Teflon tubing which extends along the biopile surface, underneath the cover, and exits at the biopile perimeter berm. The tubing is sheathed by PVC pipe where it exits the biopile to give protection from sunlight. Outside the outer berm the tubing is fastened to a stake and clearly labeled. The end of the tube is equipped with a quick fit coupling to allow connection of gas monitoring equipment.

Eighteen soil moisture probes are installed in the biopile at various depths. Probe locations and depths are presented in Figure 1. The moisture probes consist of two parts: a gypsum soil block (sensor) and a measuring instrument. The blocks are made of gypsum cast around two concentric electrodes. When the block is buried in the soil it absorbs moisture from the soil or releases moisture to the soil, until its moisture content approaches equilibrium with the moisture content of the soil. When the block is connected to the meter, current flows between the electrodes and the electrical resistance of the gypsum is measured. Such readings are an indication of the moisture in the soil pile.

4.0 Startup Monitoring and Testing

Startup of the biopile consists of switching on the blower, balancing the air entering the biopile through the aeration system, and measuring oxygen levels within the biopile to ensure adequate supply to allow bioremediation to occur. A shutdown respiration test follows initial startup procedures to give an indication of the rate of biodegradation in the pile.

4.1 Air Flow Balancing

The first step in achieving the correct levels of oxygen in the biopile is to balance the flow of air into each of the 27 aeration pipes. The air input value was calculated following data included in the April 2005 Basis of Design (BOD) Report. The report states that approximately 114 cfm of air is required to provide the necessary oxygen to sustain the biodegradation process. Given the 27 aeration pipes evenly spaced through the pile, the total air input of 114 cfm was divided by 27 to give an approximate air input per pipe of 4.2 cfm.

Air flow readings are taken using a hot wire anemometer. The hot wire anemometer gives a direct reading of air velocity. It will display airflow in cubic feet per minute if the user inputs the cross-sectional area of the pipe which is 0.02 ft². The anemometer is factory calibrated. Recalibration is achieved by returning to the manufacturer annually. A copy of the Users Manual for an Extech Instruments Heavy Duty Hot Wire CFM Thermo-Anemometer, Model 407119A, is attached as Appendix A. An equivalent instrument may be used.

The detailed procedure for air balancing is presented below:

- At each aeration leg, designated BV-1 through BV-27, remove duct tape from monitoring hole in the pipe
- Insert anemometer probe until it is situated in the center of the pipe, making sure that the sheath is pushed up to expose the probe
- Twist the probe around until the highest reading is produced at which point the probe is parallel with the airflow as required
- Open or close the aeration leg ball valve in small increments until the required airflow is displayed on the anemometer screen

- Remove the probe and reseal the hole with duct tape
- Repeat for all twenty seven aeration pipes

The user will then return to the first pipe and take a further reading to monitor the effect that adjusting the other valves has had on the flow. Further small adjustments may be necessary for each of the aeration pipes to achieve the desired flow rates. Data will be recorded on **Form 1.**

4.2 Oxygen Measurement

The level of oxygen is initially monitored and adjusted as part of the start up of the system. All soil gas probes are monitored for O₂ concentration. The detector is factory calibrated and recalibration is achieved by returning to the manufacturer annually. A copy of the Users Manual for an RKI Instruments Eagle Portable Multi-Gas Detector is attached as Appendix B. An equivalent instrument may be used.

Monitoring for O₂ and adjustment during start up will commence following air flow rate balancing as described above. The following steps will be followed, with the blower in operation:

- Connect the gas monitor to soil gas probe via the flexible tubing. The hydrophobic filter must be in line and an air tight seal must exist where the detector is connected to the in situ tubing.
- When switched on, the gas detector pump will automatically be running. The detector should be left connected to the probe for a period of two minutes before readings are noted to allow the line to be purged.
- After two minutes, record the O₂ concentration on **Form 2.**
- Repeat the process for all twelve soil gas probes.

If necessary, adjust the ball valve or valves closest to the probe to increase the flow of air so that measured oxygen readings are greater than 15% for each monitoring point.

4.3 Shutdown Respiration Test

The shutdown respiration test is designed to give an indication of the level at which the oxygen is being consumed once the blower is turned off. Measurement of the decrease in oxygen level gives a good indication of the efficiency of the biopile. The test is performed as described below with data noted on the respiration test monitoring form as shown in **Form 3**. During the respiration test oxygen is no longer being introduced into the pile. A healthy microbial population should result in a reduction in oxygen and an increase in carbon dioxide over time.

The following steps will be followed:

- Turn off blower (after at least 24 hours of continuous operation)
- Monitor concentrations of O₂ and CO₂ at 2, 4, 6, and 8 hours after turning off blower using an acceptable multi-gas detector. Enter data on **Form 3**. Levels of flammable gases, hydrogen sulfide, and VOCs may also be recorded.
- Repeat readings at 8 to 12 hour intervals.
- Once measured values of O₂ have stabilized, or when all O₂ levels are below 12%, the test is completed (no more than 48 hours) and blower may be restarted.
- The oxygen utilization rate may then be used to give an indication of expected hydrocarbon degradation rates and the time required to achieve required performance standards.

The shutdown respiration test may be repeated in the future if routinely-gathered biopile monitoring data suggest that the bioremediation process is not proceeding as effectively as expected.

5.0 Routine Biopile Monitoring and Testing

During the active life of the biopile, routine monitoring and testing is necessary in order to continuously assess effectiveness of the bioremediation process. A summary of the routine monitoring and testing program is presented in the table below. Detailed monitoring and testing procedures are provided in the following sections.

Maintenance and Performance Testing Activity	Frequency
<ul style="list-style-type: none">• Visual inspection of the berm, biopile cover, tiedowns, blower and blower piping, storm water collection system, fence and gate, etc.• Airflow measurements at each aeration leg (only first month)• Soil gas O₂ and CO₂ measurement (only first month)• Soil gas VOC measurement (only first month)• Ambient air VOC measurement (only first month)• Moisture content measurement (only first month)	Weekly
<ul style="list-style-type: none">• Airflow measurements at each aeration leg• Soil gas O₂ and CO₂ measurement• Soil gas VOC measurement• Ambient air VOC measurement• Moisture content measurement	Monthly
<ul style="list-style-type: none">• Collection of soil samples for laboratory analysis of xylene, ethylbenzene and MIBK content	Quarterly
<ul style="list-style-type: none">• Collection of soil samples within the biopile to determine pH, moisture content and nutrient content	As necessary
<ul style="list-style-type: none">• Respiration testing	As necessary

5.1 Visual Inspections

Visual inspections will address both mechanical and non mechanical components of the biopile. Inspections are necessary as the blower and pumps are susceptible to wear and tear and breakdown/malfunction and biopile components such as the berm, tiedowns, cover, aeration system components, and fence need to be checked at regular intervals for competence/integrity. The biopile visual inspection form is shown in **Form 4**.

5.2 Soil Moisture Measurement

The biopile is equipped with eighteen soil moisture probes, designated as MP-1 though MP-18, as described in Section 3. Soil moisture is determined using a Delmhorst Instrument Co. Model KS-D1 moisture tester. A copy of the Users Manual for the device is attached as Appendix C. Procedures for measuring soil moisture are presented below:

- Before each set of readings check meter calibration: Press the 'CAL CHK' button. The meter should read 80 +/- 1.0.
- From each moisture probe location there is a cable with two tinned ends of wire. Push the tinned ends of the wires into the spring loaded binding posts of the meter.
- Press the read button and the moisture level (as % of available moisture) will be displayed.
- After the moisture level stabilizes (typically within 10 seconds), record the displayed value on **Form 5**.

Soil moisture values will be used to determine if moisture addition to the biopile is necessary. If soil moisture readings drop below 70%, EHS personnel should be contacted and arrangements made to activate the biopile irrigation system.

5.3 Soil Gas Monitoring

During operation of the biopile, the soil gas probes are monitored using the RKI Eagle portable gas monitor (or equivalent) for O₂ and CO₂. Flammable gases in the LEL/ppm range and hydrogen sulfide may also be monitored if a suitable multi-gas meter is used. Monitoring is performed as described in Section 4.2 with results recorded on **Form 3**. Also volatile organic compounds (VOCs) are measured using a Minirae hand-held PID (or equivalent) which gives a quantitative measurement of volatile organic compounds in soil gas expressed in ppm. The PID is calibrated on site each time it is used in accordance with manufacturer's specifications.

5.4 Air Flow Rate Measurements

Air flow rate at each branched pipe of the aeration system entering the biopile is monitored during operation of the biopile by the use of a hot wire anemometer as described in section 4.1 with results recorded on **Form 1**. Adjustments in the air flow will be made using the respective ball valve if considered necessary. Damaged or inoperable valves should be reported to EHS personnel immediately.

5.5 Ambient Air Monitoring

Monitoring of ambient air in the vicinity of the biopile for VOCs is performed to ensure that emissions from the biopile do not pose a health and safety hazard to site workers or members of the public. The procedure is included below:

- Note the wind direction on **Form 6**.
- Take continuous readings of VOCs in ambient air at breathing height using a photoionization detector while walking around the entire perimeter of the biopile, immediately outside of the outer berm.
- At each of the ten locations (A1 through A10) indicated on **Form 6**, record the PID reading. Note on the drawing elevated PID levels at any location between monitoring points as appropriate.
- Note any discernable VOC odors on **Form 6**

If PID readings exceed 20 ppm at any location, immediately notify EHS personnel.

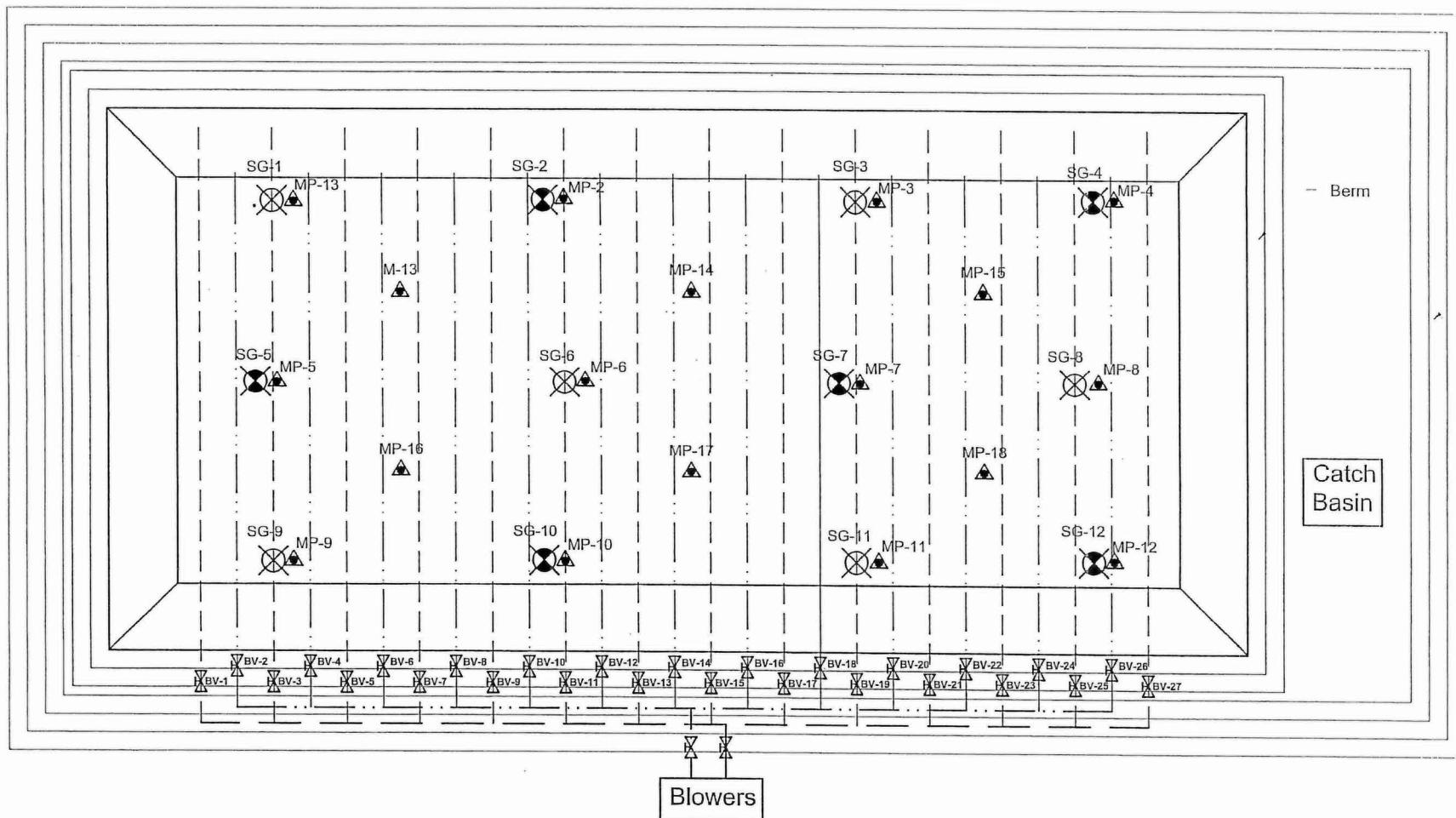
5.6 Performance Evaluation

Soil sampling and analysis for the contaminants of concern xylene, ethylbenzene, and MIBK will be implemented quarterly until performance standards are achieved. Results of analysis allow a direct comparison with the performance criteria defined for removal of the treated soil from the biopile. During excavation, a number of samples were taken and analyzed for the contaminants of concern. This data provides a baseline to which to compare the results from the soil sampling from the biopile. Depending upon performance of the pile, analysis of soil samples for pH, moisture content and nutrient content may also be implemented to identify conditions which may be impeding effective bioremediation processes.

The procedures for collection and analysis of soil samples will conform to those presented in Section 4.4 of the EPA-approved *Interim Corrective Measure Work Plan, Building 5 Area, Revision 1.0, August 2004*, which is considered a part of this monitoring plan by reference.

Soil sampling will be implemented using the following procedure:

- Using PID readings, determine the appropriate level of PPE for walking on top of the pile.
- Carefully mount the pile and proceed to the first selected sampling location.
- Cut a slit in the biopile cover of adequate length to allow access of sampling equipment.
- By the use of a hand auger or similar device, remove soil from the pile to the required depth.
- Measure and note the depth from the top of the pile. Remove a sample of the required volume of soil as defined by the testing laboratory and store according to the requirements of the testing laboratory.
- Fill the borehole with soil boring cuttings.
- Secure the opening of the biopile cover as directed by EHS personnel.
- Repeat the procedure at each sampling location



LEGEND

- — — Lower aeration pipes
- . — Upper aeration pipes
- ☒ Gas sample probe 4 feet below top of pile. Moisture probe 1 foot above gas probe.
- ☒ Gas sample probe 7 feet below top of pile. Moisture probe 1 foot above gas probe.
- ▲ Moisture probe 4 feet below top of pile.

Scale	Date
not scaled	March 2006
ANDERSON - MULHOLLAND & ASSOCIATES, INC. WHITE PLAINS, NEW YORK SAN JUAN, PUERTO RICO	

Building 5 Interim Measure Biopile Sample Probe Locations

Bristol-Myers Squibb Manufacturing Company
Humacao, Puerto Rico

Forms

Form 1 - Biopile Air Flow Rate Monitoring Form



Bristol-Myers Squibb Manufacturing Company

Date:

Measured by:

Valve No.	Time	Initial balanced air flow (cfm)	Flow following initial balancing (cfm)	Flow following fine adjustment (cfm)	Comments
BV1					
BV2					
BV3					
BV4					
BV5					
BV6					
BV7					
BV8					
BV9					
BV10					
BV11					
BV12					
BV13					
BV14					
BV15					
BV16					
BV17					
BV18					
BV19					
BV20					
BV21					
BV22					
BV23					
BV24					
BV25					
BV26					
BV27					

Form 2 - Oxygen Concentration Balancing Form

 Bristol-Myers Squibb Manufacturing Company				Date: _____ Sampled by: _____		
Monitoring Point ID	Time	O ₂ (%)	Time	O ₂ (%)	Time	O ₂ (%)
SG-1						
SG-2						
SG-3						
SG-4						
SG-5						
SG-6						
SG-7						
SG-8						
SG-9						
SG-10						
SG-11						
SG-12						
Comments/Observations: <hr/> <hr/> <hr/> <hr/> <hr/>						

Form 3 - Soil Gas Monitoring Form

 Bristol-Myers Squibb Manufacturing Company				Date: Sampled by:		
Date and time blower switched off (if respiration test):						
Monitoring Point ID	Time	O ₂ (%)	CO ₂ (%)	Flam. (ppmv)	H ₂ S (%)	PID (ppmv)
SG-1						
SG-2						
SG-3						
SG-4						
SG-5						
SG-6						
SG-7						
SG-8						
SG-9						
SG-10						
SG-11						
SG-12						
Average value						
Comments/Observations:						

Form 4 - Biopile Visual Inspection Form



Bristol-Myers Squibb Manufacturing Company

Date:

Time:

Inspected by:

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

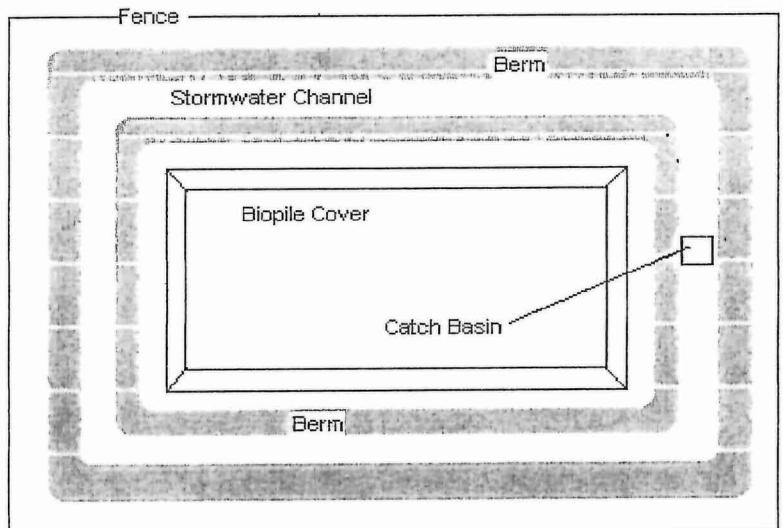
Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity



Non Mechanical Equipment, General Observations:

Berms

Integrity of toe

Integrity of crest

Mechanical Equipment

Blower

Valves

Gauges

Sump Pump

Form 5 - Soil Moisture Monitoring Form

 Bristol-Myers Squibb Manufacturing Company						Date: Readings by:	
Moisture Probe	MP-1	MP-2	MP-3	MP-4	MP-5	MP-6	
Reading							
Moisture Probe	MP-7	MP-8	MP-9	MP-10	MP-11	MP-12	
Reading							
Moisture Probe	MP-13	MP-14	MP-15	MP-16	MP-17	MP-18	
Reading							
Soaker Hose switched on?		Yes	No				
If so, for how long?							
Other Information:							
Weather Conditions:							
Comments/Observations:							

Form 6 - Ambient Air Monitoring Form



Bristol-Myers Squibb Manufacturing Company

Date	Measure by		Weather Condition	
Time	Wind Direction			
Location	PID Reading	Odors (yes/no)	Use sketches below to approximate monitoring location and to indicate wind direction	
A-1				
A-2				
A-3				
A-4				
A-5				
A-6				
A-7				
A-8				
A-9				
A-10			<p align="center">Indicate wind direction :</p>	
OBSERVATIONS				

Appendix G
Biopile Monitoring and Inspection Forms

Form 5 Airflow Monitoring Form



Bristol-Myers Squibb Manufacturing Company

Date: 4 Apr. 06
Measured by: M. Bowen

Valve No.	Time	Initial balanced flow / cfm	Flow following balance of other valves	Flow following fine adjustment		
BV1	10:02	4.21			$\sim \frac{1}{3}$ open	
BV2		6.2			valve stuck $\frac{1}{2}$ open	
BV3		3.62				
BV4		4.80				
BV5		4.05				
BV6		4.13				
BV7		4.56				
BV8		4.64				
BV9		4.52				
BV10		6.41			valve very stiff	
BV11		4.40				
BV12		4.33				
BV13		4.17				
BV14			VALVE BROKEN			
BV15		4.80				
BV16		4.05				
BV17		5.74			valve very stiff	
BV18			VALVE BROKEN			
BV19		4.80				
BV20		4.52				
BV21		5.78				
BV22		4.29				
BV23		5.15				
BV24		4.68				

80 mg/h
dayburnable
moisture:

Form 5 Airflow Monitoring Form



 Bristol-Myers Squibb Manufacturing Company

Date:

Measured by: M. Bowen

Form 4 Soil gas Oxygen and CO₂ Monitoring

Bristol-Myers Squibb Manufacturing Company			Date: April 4, 06	Tested by: Nestor M. Rivera			
			April 5, 06				
			1	2 933	3	4	5
Monitoring Point #	SG-1	Oxygen	15.4	15.4	17.7		
Time Started:	1133	CO ₂	3.5	2.7	1.4		
		Flam./H ₂ S	11000/0.0	11000/0.0	14800/0.0		
Time Started:		PID					
Is oxygen > 15%? Yes / No			If 'yes', no action required, if 'no', adjust airflow and repeat				
Airflow adjusted (give details)? Yes / No							
Measurements repeated (tabulate results)?			Yes / No	April 5, 06			
			1	1415 21420	3 940	12034	5
Monitoring Point #	SG-2	Oxygen	0.0	1.6	16.8	16.8	17.4
Time Started:	1132	CO ₂	17.1	14.0	3.9	3.0	3.2
		Flam./H ₂ S	13000/0.0	9900	15000	1150/0.0	10750/0.0
Time Started:		PID				Water in line	
Is oxygen > 15%? Yes / No			If 'yes', no action required, if 'no', adjust airflow and repeat				
Airflow adjusted (give details)? Yes / No			Valve 1D #1 opened				
Measurements repeated (tabulate results)?			Yes / No	April 5, 06			
			1	1415 21420	3 940	4 930	12145
Monitoring Point #	SG-3	Oxygen	1.8	1.6	16.8	18.9	13.2
Time Started:	1142	CO ₂	17.8	14.0	3.9	0.9	2
		Flam./H ₂ S	13,000/0.0	9900	15000	20,500/0.0	14,500/0.0
Time Started:		PID					
Is oxygen > 15%? Yes / No			If 'yes', no action required, if 'no', adjust airflow and repeat				
Airflow adjusted (give details)? Yes / No			Valve #1 open, 18, 20, 29.				
Measurements repeated (tabulate results)?			Yes / No	April 5, 06			
			1	1415 21420	3 940	4 930	12145
Monitoring Point #	SG-4	Oxygen	19.2		16.4	19.2	
Time Started:	1144	CO ₂	0.0		1.1	0.6	
		Flam./H ₂ S	4000/0.0		4400/0.0	3950/0.0	
Time Started:		PID					
Is oxygen > 15%? Yes / No			If 'yes', no action required, if 'no', adjust airflow and repeat				
Airflow adjusted (give details)? Yes / No							
Measurements repeated (tabulate results)?			Yes / No				

Form 4 Soil gas Oxygen and CO₂ Monitoring

Bristol-Myers Squibb Manufacturing Company

Date: April 14, 06
Tested by: Nestor M. Rivera

April 15, 06

		1	1400/21410	31000	12564	5
Monitoring Point #	SG-8	Oxygen	0.0	0.0	15.7	15.6
Time Started:	1147	CO ₂	18.4	~18	4.7	5.9
		Flam./H ₂ S	1600/0.0	800	14250/0.0	11500/0

Time Started: PID
Is oxygen > 15%? Yes / No If 'yes', no action required, if 'no', adjust airflow and repeat

Airflow adjusted (give details)? Yes / No Valve: 25 was opened

Measurements repeated (tabulate results)? Yes / No 1405 - open valve

		1	1400/21410	3	4	5
Monitoring Point #	SG-12	Oxygen	19.8	19.2	WATER	
Time Started:	1150	CO ₂	0.0	0.3	X	
WATER in LINE		Flam./H ₂ S	1750/0.0	610/0.0	X	

Time Started: PID
Is oxygen > 15%? Yes / No If 'yes', no action required, if 'no', adjust airflow and repeat

Airflow adjusted (give details)? Yes / No

Measurements repeated (tabulate results)? Yes / No 1405 / 1313

		1	2	3	4	5
Monitoring Point #	SG-11	Oxygen	19.7	19.2	19.4	20.9
Time Started:	11.56	CO ₂	0.3	0.3	0.5	0.5
		Flam./H ₂ S	2050/0.0	470/0.0	480/0.0	750/0.0

Time Started: PID
Is oxygen > 15%? Yes / No If 'yes', no action required, if 'no', adjust airflow and repeat

Airflow adjusted (give details)? Yes / No

Measurements repeated (tabulate results)? Yes / No

		1	2	3	4	5
Monitoring Point #	SG-7	Oxygen	20.0	26.9	26.9	
Time Started:	11 58	CO ₂	0.0	0.0	0.0	
		Flam./H ₂ S	1550/0.0	366/0.0	370/0.0	

Time Started: PID
Is oxygen > 15%? Yes / No If 'yes', no action required, if 'no', adjust airflow and repeat

Airflow adjusted (give details)? Yes / No

Measurements repeated (tabulate results)? Yes / No

Form 4 Soil gas Oxygen and CO₂ Monitoring

Bristol-Myers Squibb Manufacturing Company

Date: April 4, 06
Tested by: Nestor M. Rivera

		1	2	3	4	5
Monitoring Point #	SG-6	Oxygen	6.6	10.7 ^{shot} 20.6	10.3	11.0
Time Started:	11:00	CO ₂	0.0	7.4	0.5	5.0
		Flam./H ₂ S	7000/0.0	15250/0	4000/0.0	14250/0.0

Time Started: PID VALVE open fully

Is oxygen > 15%? Yes / No If 'yes', no action required, if 'no', adjust airflow and repeat

Airflow adjusted (give details)? Yes / No open VALVE BV 10/BV 11

Measurements repeated (tabulate results)?

		1	2	3	4	5
Monitoring Point #	SG-10	Oxygen	19.1	20.9	20.2	
Time Started:	1125	CO ₂	0.5	0.0	0.3	
		Flam./H ₂ S	6500/0.0	1016.0	2750/0.0	

Time Started: PID VALVE 11 open 5 min

Is oxygen > 15%? Yes / No If 'yes', no action required, if 'no', adjust airflow and repeat

Airflow adjusted (give details)? Yes / No

Measurements repeated (tabulate results)?

		1	2	3	4	5
Monitoring Point #	SG-9	Oxygen	19.3	20.9	20.4	20.8
Time Started:	1128	CO ₂	0.1	0.0	0.2	0.0
		Flam./H ₂ S	2850/0.0	210/0.0	3550/0	310/0.0

Time Started: PID VALVE 10 open 7 min

Is oxygen > 15%? Yes / No If 'yes', no action required, if 'no', adjust airflow and repeat

Airflow adjusted (give details)? Yes / No

Measurements repeated (tabulate results)?

		1	2	3	4	5
Monitoring Point #	SG-5	Oxygen	14.5	18.8	20.9	18.9
Time Started:	1138	CO ₂	3.5	1.4	0.1	1.8
		Flam./H ₂ S	1700/0.0	17750/0.0	100/0.0	13250/0.0

Time Started: PID VALVE 213 open

Is oxygen > 15%? Yes / No If 'yes', no action required, if 'no', adjust airflow and repeat

Airflow adjusted (give details)? Yes / No

Measurements repeated (tabulate results)? Yes / No

Vapor Monitoring Form

PAGE 01

NESTOR M RIVERA

7877568069

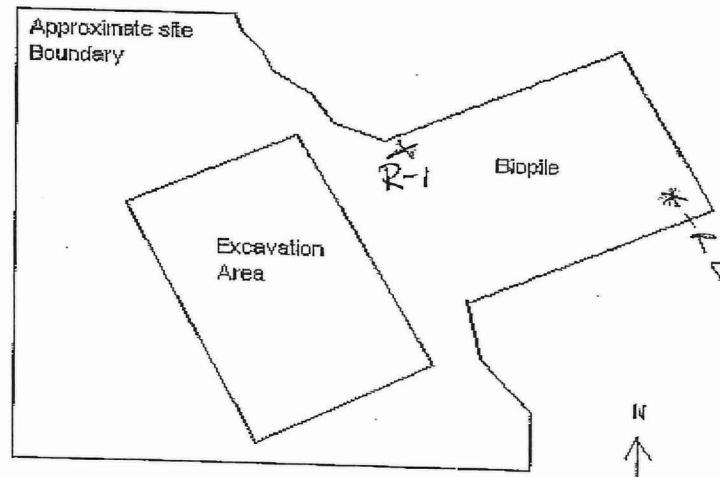
04/06/2006 06:59



Bristol-Myers Squibb Manufacturing Company

	Reading 1	Reading 2
Measured by	Nestor M. Rivera	N. ML
Date	April 4, 06	April 4, 06
Time	950	956
Wind Direction	NE, 28°F.	NE; 88°F
PID Reading	7.5	0.0
Odors	yes	no
Weather Conditions	Sunny	Sunny
	Reading 1	Reading 2

Mark on the sketch below the approximate monitoring location



Other Information: Calibration of PID - 164 ppm

Form 4 Soil gas Oxygen and CO₂ Monitoring

Bristol-Myers Squibb Manufacturing Company

Date: 7 Apr 06
 Tested by: N. Rivera / M. Bowen

		1	2	3	4	5
Monitoring Point #	568	% Vol Oxygen	11.5			
Time Started:	1:30	% Vol CO ₂	7.2			
		ppm Methane/H2S	16250%			
Time Started:		flammable PID	1600			

Is oxygen > 15%? Yes / No If 'yes', no action required, if 'no', adjust airflow and repeat

Airflow adjusted (give details)? Yes / No

Measurements repeated (tabulate results)? Yes / No

		1	2	3	4	5
Monitoring Point #	564	Oxygen	8.9			
Time Started:	1:40	CO ₂	9.1			
		Flammable Methane/H2S	15500			
Time Started:		PID	9999 OR			

Is oxygen > 15%? Yes / No If 'yes', no action required, if 'no', adjust airflow and repeat

Airflow adjusted (give details)? Yes / No

Measurements repeated (tabulate results)? Yes / No

		1	2	3	4	5
Monitoring Point #	563	% Vol Oxygen	2.5			
Time Started:	1:48	% Vol CO ₂	15.7			
		ppm Methane/H2S	10750			
Time Started:		ppm PID	4310			

Is oxygen > 15%? Yes / No If 'yes', no action required, if 'no', adjust airflow and repeat

Airflow adjusted (give details)? Yes / No

Measurements repeated (tabulate results)? Yes / No

		1	2	3	4	5
Monitoring Point #	561	% Vol Oxygen	0.0			
Time Started:		% Vol CO ₂	20			
		ppm Methane/H2S	840%			
Time Started:		ppm PID	2429			

Is oxygen > 15%? Yes / No If 'yes', no action required, if 'no', adjust airflow and repeat

Airflow adjusted (give details)? Yes / No

Measurements repeated (tabulate results)? Yes / No

Form 4 Soil gas Oxygen and CO₂ Monitoring

 Bristol-Myers Squibb Manufacturing Company			Date: <i>14 Apr '06</i>	Tested by: <i>M. Rivera / M. Benen</i>		
		1	2	3	4	5
Monitoring Point #	<i>SG8</i>	% vol Oxygen	<i>0.4</i>	<i>0.4</i>		
Time Started:	<i>8:20 am</i>	% vol CO ₂	<i>6.2</i>	<i>6.7</i>		
		Flammable methane /H ₂ S	<i>1850%</i>	<i>1790%</i>		
Time Started:		PID				
Is oxygen > 15%? Yes / No		If 'yes', no action required, if 'no', adjust airflow and repeat				
Airflow adjusted (give details)? Yes / No						
Measurements repeated (tabulate results)?		Yes / No				
		1	2	3	4	5
Monitoring Point #	<i>SG4</i>	% vol Oxygen	<i>0.0</i>	<i>0.2</i>		
Time Started:	<i>8:35</i>	% vol CO ₂	<i>15.7</i>	<i>15.8</i>		
		Flammable methane /H ₂ S	<i>14000%</i>	<i>14500%</i>		
Time Started:		PID				
Is oxygen > 15%? Yes / No		If 'yes', no action required, if 'no', adjust airflow and repeat				
Airflow adjusted (give details)? Yes / No						
Measurements repeated (tabulate results)?		Yes / No				
		1	2	3	4	5
Monitoring Point #	<i>SG3</i>	Oxygen	<i>0.5</i>	<i>0.2</i>		
Time Started:	<i>8:45</i>	CO ₂	<i>15.3</i>	<i>15.2</i>		
		Flammable methane /H ₂ S	<i>1850%</i>	<i>1850%</i>		
Time Started:		PID				
Is oxygen > 15%? Yes / No		If 'yes', no action required, if 'no', adjust airflow and repeat				
Airflow adjusted (give details)? Yes / No						
Measurements repeated (tabulate results)?		Yes / No				
		1	2	3	4	5
Monitoring Point #	<i>SG-1</i>	Oxygen	<i>0.0</i>	<i>0.0</i>		
Time Started:	<i>8:05</i>	CO ₂	<i>15.4</i>	<i>15.4</i>		
		Flammable methane /H ₂ S	<i>1700%</i>	<i>1720%</i>		
Time Started:		PID				
Is oxygen > 15%? Yes / No		If 'yes', no action required, if 'no', adjust airflow and repeat				
Airflow adjusted (give details)? Yes / No						
Measurements repeated (tabulate results)?		Yes / No				

Form Moisture Gauge Reading Form

 Bristol-Myers Squibb Manufacturing Company					Date: April 4, 06 Readings by: Nestor M. Rivera		
Time	1000	1000 06	1008	1016	1012	1013	1014
Moisture Probe	MP-1	MP-13	MP-2	MP-14	MP-3	MP-15	MP-4
Reading	99.8	99.5	99.5	99.2	99.1	99.6	99.7
Moisture Probe	MP-15	1018	1020	1022	1023	1024	1025
Reading	MP-8	MP-12	MP-18	MP-11	MP-7	MP-17	MP-10
Moisture Probe	1025	1027	1029	1030			
Reading	MP-6	MP-16	MP-9	MP-5			
Soaker Hose switched on?	Yes	No					
If so, for how long?							
Other Information:							
Weather Conditions: sunny/hot - 88°F							
Comments/Observations: Cal check @ 1000 99.8. METER very fluctuating for 15 seconds							

Form Moisture : Je Reading Form



Bristol-Myers Squibb Manufacturing Company

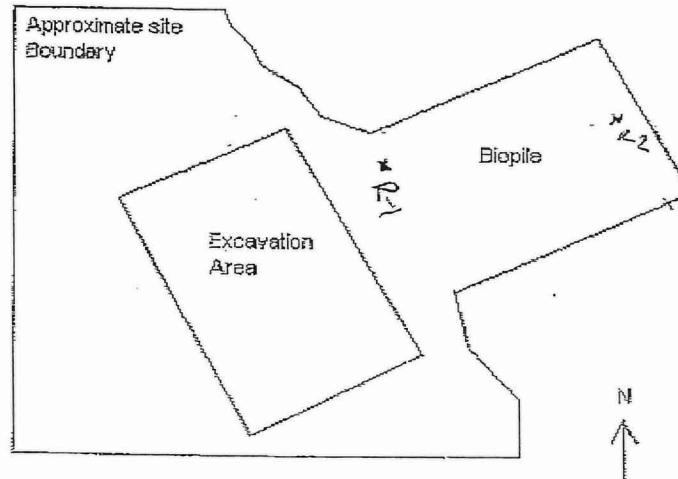
Date: April 6, 1986

Readings by: Nestor M. Rivera



Bristol-Myers Squibb Manufacturing Company

	Reading 1	Reading 2	
Measured by	Nestor M. Rivera	Nestor M. Rivera	Mark on the sketch below the approximate monitoring location
Date	April 5, 06	April 5, 06	
Time	9:20	9:27	
Wind Direction			
PID Reading	NW, 89° F	NW 87° E	
Odors	Slight	Slight to Strong	
Weather Conditions	Rainy/ Sunny	Rainy/ Sunny	
		Reading 1	Reading 2



Other Information: Blower is off. Intend to install a part missing so one blower to blow to have both operational. It was only when all time. Miss David runs blower on. Intention is to keep them on all the time.

Vapor Monitoring Form

PAGE 03

NESTOR M RIVERA

7877568069

22:33

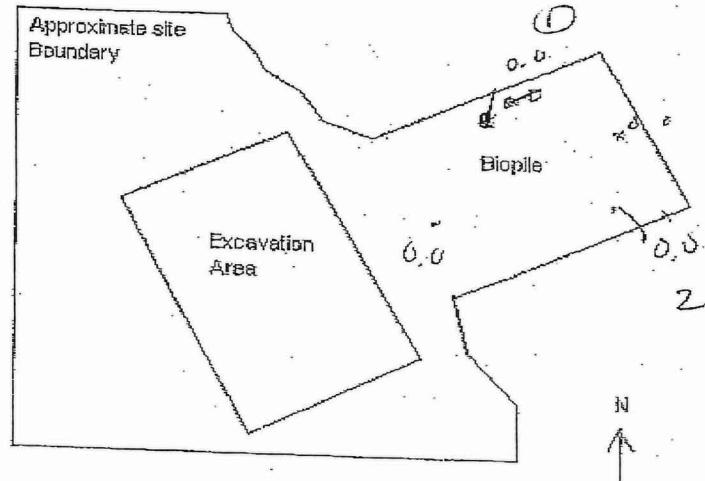
04/12/2006



Bristol-Myers Squibb Manufacturing Company

	Reading 1	Reading 2
Measured by	N.M. Rivera	N.M. Rivera
Date	April 12, 06	April 12, 06
Time	1546	1548
Wind Direction	N	N
PID Reading	0.0	0.0
Odors	Slight	Slight
Weather Conditions	Sunny Windy SW	Sunny Winds SW
Other Information:		

Mark on the sketch below the approximate monitoring location



Reading 1

Reading 2



Bristol-Myers Squibb Manufacturing Company

RESPIRATION TEST
BASELINE

	Reading 1	Reading 2	Mark on the sketch below the approximate monitoring location		
Measured by	JR		<p>Approximate site Boundary</p> <p>Excavation Area</p> <p>Biopile</p> <p>N</p>		
Date	4/11/06				
Time	9:25 - 9:30				
Wind Direction	E				
PID Reading	0				
Odors	SLIGHT MODERATE				
Weather Conditions	SUNNY		Reading 1	Reading 2	
	DRY				
If PID>20ppm or noticeable odors, BMS EHS Project Coordinator notified? (yes/no)		0			

Other Information:

No PID detects anywhere around perimeter at pile. Readings taken immediately before flowers shut-off. PID calibrated prior to measurement.

Form 5 Moisture Reading Form

2



 Bristol-Myers Squibb Manufacturing Company

Date: 4/11/06 11:30
Readings by: Huy

Form 5 Moisture Reading Form

3



Bristol-Myers Squibb Manufacturing Company

Date: April 11, 06 13:34-7
Readings by: NM Bitter

Form 5 Moisture Reading Form



 Bristol-Myers Squibb Manufacturing Company

Date: 4/11/06 1530
Readings by: NV 82 / 1km

Moisture Probe	MP 1	MP 2	MP 3	MP 4	MP 5	MP 6
Reading	99.5	99.2	99.3	100.2	99.3	99.5
Moisture Probe	MP 7	MP 8	MP 9	MP 10	MP 11	MP 12
Reading	99.5	100.4	99.2	99.3	98.3	99.7
Moisture Probe	MP 13	MP 14	MP 15	MP 16	MP 17	MP 18 9
Reading	98.9	99.6	99.8	99.0	99.2	99.6
Soaker Hose switched on?	Yes	<input checked="" type="checkbox"/> No				
If so, for how long?						
Other Information:	Floor 6 of respirator test					
Weather Conditions:	Sunny, dry					
Comments/Observations:						

Form 5 Moisture Reading Form



 Bristol-Myers Squibb Manufacturing Company

Date: 4/11/26 1730 →
Readings by: *dk*

(1)

Form 3
Respiration Test Monitoring Form



Bristol-Myers Squibb Manufacturing Company

Date: 4/11/06

Sampled by: NR

Date and time blower switched off:

BEFORE SHUT-OFF

Monitoring Point ID	Time AM	O ₂ (%)	CO ₂ (%)	Flam. (ppmv)	H ₂ S (%)
Sh-1	8:9:03	18.2	2.1	2400	0
Sh-2	9:05	15.8	3.6	1850	0
Sh-3	9:10	20.9	0.3	2000	0
Sh-4	9:14	20.9	0.0	680	0
Sh-5	8:57	19.0	1.6	630	0
Sh-6	8:48	19.0	1.3	780	0
Sh-7	8:43	20.9	0.0	340	0
Sh-8	9:19	15.9	4.0	1100	0
Sh-9	8:54	20.9	0.0	320	0
Sh-10	8:50	20.9	0.2	630	0
Sh-11	8:41	20.9	0.1	680	0
Sh-12	8:37	20.9	0.5	460	0
Average value		19.5			

Comments/Observations:

System shut-off at 9:30 AM

4/11/06
NR

(2)

Form 3
Respiration Test Monitoring Form

 Bristol-Myers Squibb Manufacturing Company		Date: 4/11/06 Sampled by: Hm			
Date and time blower switched off: 4/11/06 - 9:30 AM					
Monitoring Point ID	Time	O ₂ (%)	CO ₂ (%)	Flam. (ppmv) C ₄ H ₄	H ₂ S (%)
Sh-1	1207	10.6	7.1	17000	0.0
Sh-2	1210	11.5	6.5	6850	0.0
Sh-3	1214	15.7	0.9	3250	0.0
Sh-4	1217	17.2	0.8	1250	0.0
Sh-5	1203	13.9	3.3	8100	0.0
Sh-6	1151	9.1	6.2	8950	0.0
Sh-7	1152 147	16.9	2.7	830	0.0
Sh-8	1222	(2.8) 1111 (15.7)		14250	0.0
Sh-9	1158	17.8	0.6	220	0.0
Sh-10	1153	13.9	2.1	2050	0.0
Sh-11	1142	16.4	0.9	1000	0.0
Sh-12	1136	13.6	5.0	3150	0.0
Average value					
Comments/Observations: Floor 2 respiration test. Started at 11:30 AM					

(3)

Form 3
Respiration Test Monitoring Form



Bristol-Myers Squibb Manufacturing Company

Date: April 11, 06 13:30 ->

Sampled by: NM Rivers

Date and time blower switched off:

April 11, 06 @ 9:30 am

Monitoring Point ID	Time	O ₂ (%)	CO ₂ (%)	Flam. (ppmv) C ₁ C ₄	H ₂ S (%)	
SG-1	1404	9.0	7.9	19000	0.0	9999.8% 10 sec
SG-2	1407	11.7	5.9	5700	0.0	9999.5% 15 sec
SG-3	1410	14.0	1.2	3000	0.0	9999.7% 15 sec
SG-4	1415	16.8	1.1	1400	0.0	9303, 1 min
SG-5	1401	11.0	3.9	7300	0.0	9999.0% 15 sec
SG-6	1347	6.6	6.8	10000	0.0	9999.8% 5 sec
SG-7	1343	16.1	3.1	930	0.0	442 1 min
SG-8	1425	(8.0) 11.0 (12.9)		11750	0.0	9999.5% 5 sec
SG-10	1350	11.3	2.5	2600	0.0	3613 pp 30 sec
SG-9	1355	16.4	1.0	480	0.0	458 pp 1 min
SG-11	1339	14.1	1.2	1550	0.0	1260 8 sec
SG-12	1336	13.0	4.8	14750	0.0	9999.0% 25 sec
Average value						

Comments/Observations:

Hour 4 respiration test

Started at 1:30 pm

Form 3
Respiration Test Monitoring Form

(4)



Bristol-Myers Squibb Manufacturing Company

Date: April 11 02 1330

Sampled by: NM River

Date and time blower switched off:

Monitoring Point ID	Time	O ₂ (%)	CO ₂ (%)	Flam. (ppmv)	H ₂ S (%)	PZP
SG-12	1532	12.0	5.1	4450	0.0	9999.0 20 sec
SG 2	1600	11.4	5.4	4350	0	OR 18 sec
SG 3	1604	12.5	1.4	2600	0	OR 20 sec
SG 4	1607	16.5	1.3	1300	0	345 60.3
SG 5	1545	8.9	84.0	5500	0.0	9999 10 sec
SG 6	1542	5.7	6.8	8450	0	9999 5 sec
SG X 11	1536	12.1	1.6	1350	0	35
SG 8	1610	2.5	13.7	11,000	0	OR 3 sec
SG 9	1547	16.4	1.1	1240	0	246 1 min
SG 10	1545	9.6	3.0	2450	0	365
SG X 7	1539	16.8	2.8	610	0	144.8 14 sec
SG X 1	1555	7.4	9.0	15000	0.0	9999.0 10 sec
Average value						

Comments/Observations:

Hour 6 respiration test

Started at 3:30 pm

(5)



Bristol-Myers Squibb Manufacturing Company

Date: 4-16-06

Sampled by: Hm

Date and time blower switched off:

4/16/06 @ 9:30 AM

Monitoring Point ID	Time	O ₂ (%)	CO ₂ (%)	Flam. (ppmv)	H ₂ S (%)	
Sh-1	1819	5.6	10.5	11,000	0	D1 3 sec
Sh-2	1822	10.7	5.2	3950	0	DR 3 sec
Sh-3	1826	9.7	1.9	2351	0	4950
Sh-4	1830	14.6	2.2	1750	0	321
Sh-5	1814	5.6	5.2	5150	0	0% 2 sec
Sh-6	1759	4.5	6.9	7600	0	0% 10 sec
Sh-7	1747	16.4	2.9	930	0	252 → 100%
Sh-8	1846 1823	14.6	6.3	10,750	0	0% 3 sec
Sh-9	1809	14.3	1.8	630	0	415
Sh-10	1802	7.5	3.6	2650	0	9800
Sh-11	1743	10.0	2.0	1600	0	140
Sh-12	1737	11.9	5.1	4350	0	*2
Average value						

Comments/Observations:

Hour 8 - RESPIRATION TEST

Started at 8:30 PM

Form 3
Respiration Test Monitoring Form

(6)



Bristol-Myers Squibb Manufacturing Company

Date: April 12, 06, 9:30 am

Sampled by: NM River

Date and time blower switched off: April 11, 06, @ 9:30

Monitoring Point ID	Time	O ₂ (%)	CO ₂ (%)	Flam. (ppmv) CH ₄	H ₂ S (%)
SG-1	9:35	1.0	14.2	4900	0.0
SG-2	9:39	2.6	5.9	6700	0.0
SG-3	9:42	2.0	4.0	6550	0.0
SG-4	9:46	9.1	4.6	2750	0.0
SG-5	9:30	1.3	6.9	8550	0.0
SG-6	9:20	2.9	6.3	7600	0.0
SG-7	9:15	16.4	2.7	300	0.0
SG-8	9:58	8.4	11.4	8900	0.0
SG-9	9:26	8.3	4.3	120	0.0
SG-10	9:23	2.3	4.4	4300	0.0
SG-11	9:12	2.1	3.8	3050	0.0
SG-12	9:08	9.2	5.6	4200	0.0
Average value					
Comments/Observations:	23.5 Hour #5 of Respiration Test				

Form 3
Respiration Test Monitoring Form



Bristol-Myers Squibb Manufacturing Company

Date: April 12, 86 1305 →
Sampled by: N K Rivera

7

Date and time blower switched off:

Monitoring Point ID	Time	O ₂ (%)	CO ₂ (%)	Flam. (ppmv) CH ₄	H ₂ S (%)	P 1
SG 5X	1332	1.2	7.5	7500	0.0	9999 5 sec
2	1345	3.7	4.3	5750	0.0	9999 5 sec
3	1348	2.9	4.6	6500	0.0	9999 5 sec
4	1351	14.7	3.1	1850	0.0	4030 1 min
5 X	1339	1.3	14.8 5100	5000	0.0	9999 10 sec
6	1320	3.2	6.6	9650	0.0	9999 5 sec
7	1313	16.4	2.7	370	0.0	925 1 min
8	1354	2.7	14.0	9150	0.0	9999 3 sec
9	1327	8.3	4.9	45	0.0	1299 1 min
10	1323	2.1	4.6	4350	0.0	4760 1 min
11	1312	3.1	4.3	2650	0.0	9999 55 sec
SG	12 1307	15.9	2.7	1200	0.0	9999 20 sec
Average value						

Comments/Observations:

Blow 27.5 at respiration test

Sunny/windy (NE)

1400 TURNED ON Blower

Form 3
Respiration Test Monitoring Form

Bristol-Myers Squibb Manufacturing Company

Date: April 12, 06 1540

Sampled by: NM Rivera

Date and time blower switched off:

Monitoring Point ID	Time	O ₂ (%)	CO ₂ (%)	Flam. (ppmv) CH ₄	H ₂ S (%)	PID
SG 1	1606	6.9	11.6	16250	0.0	9999 5 SEC
SG 2	1611	13.3	5.2	4450	0.0	9999 0.0 7 SEC
SG 3	1614	18.8	0.9	2900	0.0	9999 10.802
SG 4	1618	20.9	0.7	230	0.0	342 55300
SG 5	1603	17.5	3.6	3100	0.0	9999 5 SEC
SG 6	1553	5.3	5.9	10500	0.0	9999 7 SEC
SG 7	1548	16.3	2.4	570	0.0	436 1 min
SG 8		2.6	13.7	8550	0.0	9999 4 SEC
SG 9	1558	20.9	0.5	460	0.0	2001 1 min
SG 10	1555	18.6	1.9	2350	0.0	9999 20 SEC
SG 11	1546	19.1	1.1	2200	0.0	9999 30 SEC
SG 12	1542	11.4	4.6	3300	0.0	9999 15 SEC
Average value						

Comments/Observations:

Sunny Windy (S/N)

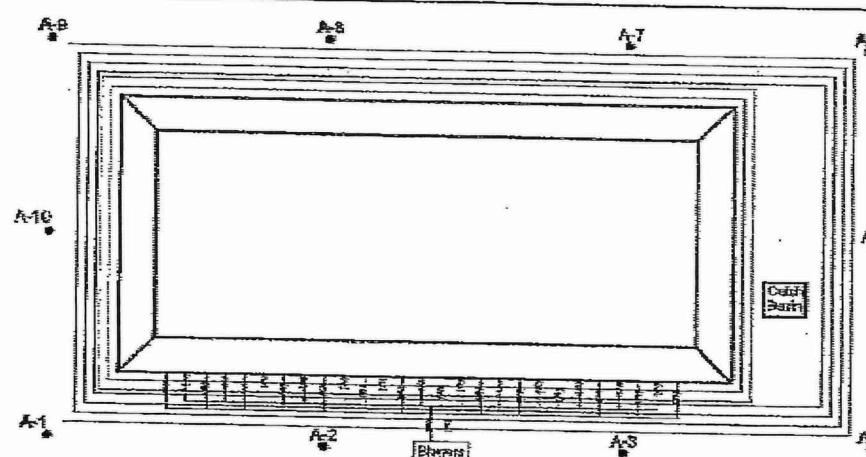
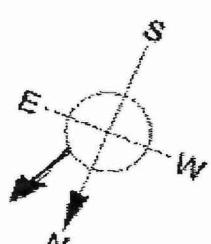
AFTER REST-DET OF BLOODES

Form 3 - Soil Gas Monitoring Form

 Bristol-Myers Squibb Manufacturing Company		Date: April 19, 06 10:30 → Sampled by: N. Rivers				
Date and time blower switched off (if respiration test):						
Monitoring Point ID	Time	O ₂ (%)	CO ₂ (%)	Flam. (ppmv)	H ₂ S (%)	PID (ppmv) 1 minute (max)
SG-1	1106	11.7	7.3	18250	0.0	9999 my 3 sec.
SG-2	1108	13.6	7.6	5800	0.0	9999 ok 5 sec.
SG-3	1112	17.4	2.0	6400	0.0	9999 ok 5 sec.
SG-4	1118	20.2	0.0	380	0.0	2630
SG-5	11.01	16.5	4.5	0	0.0	9999 ok 7 sec.
SG-6	1051	3.9	4.1	8700	0.0	9999 ok 4 sec.
SG-7	1040	14.2	4.5	1100	0.2	5230
SG-8	1123	2.4	15.8	15250	0.0	9999 ok 2 sec.
SG-9	1055	20.1	10.2	85	0.0	214
SG-10	1049	19.1	0.9	540	0.0	1629
SG-11	1043	19.2	1.0	270	0.0	1934
SG-12	1035	12.4	6.5	3000	0.0	9999 ok 10 sec.
Average value						

Comments/Observations: For SG-6 opened valves BV 11 & BV-13, slightly. For SG1 opened valves BV 2 and BV 4, slightly. In SG-2 opened valves BV 9 and BV 11. For SG-8 opened valves BV 26 and BV 27. For SG-12 opened valves BV 24 and BV-27. For SG-7 opened valve BV 18, slightly.

Form 6 - Ambient Air Monitoring Form

Bristol-Myers Squibb Manufacturing Company		
Date April 19, 66	Measure by N. M. Rivera	Weather Condition
Time 10:30	Wind Direction N-NE	SUNNY wind N-NE
Location	PID Reading (ppm)	Odors (yes/no)
A-1	0.0	None
A-2	0.0	Slight
A-3	0.0	Slight
A-4	0.0	None
A-5	0.0	None
A-6	0.0	None
A-7	0.0	None
A-8	0.0	None
A-9	0.0	None
A-10	0.0	None
Use sketches below to approximate monitoring location and to indicate wind direction  Indicate wind direction : 		
OBSERVATIONS PID calibration - 100 ppm Isobutylene Comptext installed completely		

Form 5 - Soil Moisture Monitoring Form



Bristol-Myers Squibb Manufacturing Company

Date: April 19, 2006 10:30 a.m.
Readings by: N. M. Rivera

Moisture Probe	MP-1	MP-2	MP-3	MP-4	MP-5	MP-6
Reading	100.0	99.6	99.7	100.0	99.7	100.0
Moisture Probe	MP-7	MP-8	MP-9	MP-10	MP-11	MP-12
Reading	99.6	100.3	100.1	99.9	98.9	99.6
Moisture Probe	MP-13	MP-14	MP-15	MP-16	MP-17	MP-18
Reading	99.2	99.9	99.7	99.8	99.7	99.4
Soaker Hose switched on?	Yes	No				
If so, for how long?						

Other Information:

Weather Conditions: Sunny; WIND N-NE

Comments/Observations: 8-9 inches of water under W side of biopile.

On April 17, 06 the blower was off from 7:20 am to ~11:00 for installing textile on top of biopile

Form 4 - Biopile Visual Inspection Form



Bristol-Myers Squibb Manufacturing Company

Date: April 19, 06 10:30 AM

Time: 10:30 AM

Inspected by: Nestor M. Rivera

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

If yes to any above indicate on drawing

Fence

Damaged Yes / No

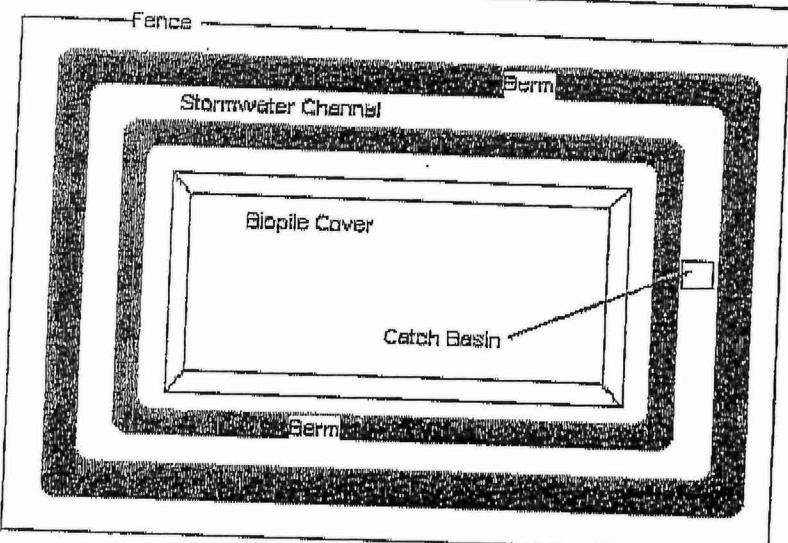
Holes Yes / No

If yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity



Non Mechanical Equipment, General Observations:

Berms

Integrity of toe OK

Integrity of crest OK

Mechanical Equipment

Blower OK

Valves OK

Gauges OK

Sump Pump OK

Form 3 - Soil Gas Monitoring Form



Bristol-Myers Squibb Manufacturing Company

Date: April 26, 06 8:00 am

Sampled by: N. Rivera

Date and time blower switched off (if respiration test):

Monitoring Point ID	Time	O ₂ (%)	CO ₂ (%)	Flam. (ppmv) CH ₄	H ₂ S (%)	PID (ppmv) 1 minute(mv)
SG-1	8:40	12.6	7.2	12000	0.0	9999 or 8 sec
SG-2	8:45	15.7	8.0	2000	0.0	1610
SG-3	8:48	16.9	2.8	4300	0.0	9999 or 6 sec
SG-4	8:51	20.1	0.0	490	0.0	4406
SG-5	8:37 8:24	16.7 5.7	4.6 11.3	2850 7400	0.0 0.0	9999 or 48 sec
SG-6	8:29	5.1	14.3	7400	0.0	9999 or 13 sec
SG-7	8:21	14.4	5.2	1000	0.0	226
SG-8	8:55	2.1	17.4	14500	0.0	4891
SG-9	8:33	20.9	0.1	330	0.0	64.8
SG-10	8:26	20.9	0.3	340	0.0	880
SG-11	8:23	19.3	1.4	400	0.0	812
SG-12	8:12	12.5	7.2	3800	0.0	9999 or 10 sec
Average value						

Comments/Observations:

For SG-12 / B - opened valves B-24/B27 slightly

For SG-6 opened valves B12/B15 slightly

For SG-7 opened valves B-1/B-2 slightly

Form 5 - Soil Moisture Monitoring Form

Bristol-Myers Squibb Manufacturing Company						
Moisture Probe	MP-1	MP-2	MP-3	MP-4	MP-5	MP-6
Reading	99.9	99.3	99.7	99.7	99.5	99.2
Moisture Probe	MP-7	MP-8	MP-9	MP-10	MP-11	MP-12
Reading	98.8	99.9	99.6	99.1	98.2	98.7
Moisture Probe	MP-13	MP-14	MP-15	MP-16	MP-17	MP-18
Reading	99.1	99.7	99.5	99.0	98.8	98.7
Soaker Hose switched on?		Yes	No			
If so, for how long?						
Other Information:		meter ready 80.3 cyl.				
Weather Conditions:		Sunny				
Comments/Observations:						

Form 4 - Biopile Visual Inspection Form



Bristol-Myers Squibb Manufacturing Company

Date: April 24, 06

Time:

Inspected by:

Non Mechanical Equipment**Cover**

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

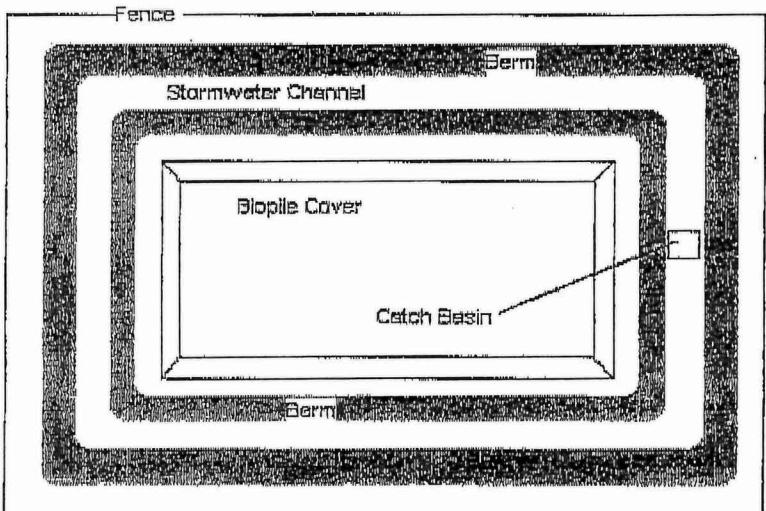
Damaged Yes / No

Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity**Non Mechanical Equipment, General Observations:****Berms**

Integrity of toe OK

Integrity of crest OK

Mechanical Equipment

Blower OK

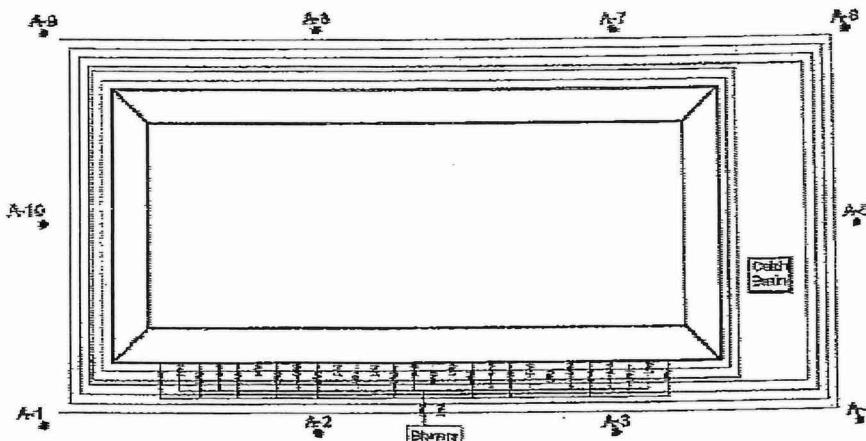
Valves OK

Gauges OK

Sump Pump OK

Form 6 - Ambient Air Monitoring Form

 Bristol-Myers Squibb Manufacturing Company

Date April 24 02	Measure by N. River	Weather Condition sunny	
Time 8 ^{AM}	Wind Direction SSE		
Location	PID Reading (ppm)	Odors (yes/no)	Use sketches below to approximate monitoring location and to indicate wind direction
A-1	0.0		 <p>The site plan shows a large rectangular building with a 'Catch Basin' indicated on its right side. Ten monitoring locations are marked around the perimeter: A-1 (top left), A-2 (top center), A-3 (top right), A-4 (bottom right), A-5 (bottom center), A-6 (bottom left), A-7 (left side), A-8 (right side), A-9 (far left), and A-10 (far right). A north arrow points upwards.</p>
A-2	0.0		
A-3	0.0	NO	
A-4	0.0	NO	
A-5	0.0		
A-6	0.0		
A-7	0.0		
A-8	0.0		
A-9	0.0		
A-10	0.0		
OBSERVATIONS WASHIN biyide 4.5 in			

Form 3 - Soil Gas Monitoring Form

 Bristol-Myers Squibb Manufacturing Company	Date: May 3, 06	9:30 am
	Sampled by: N. M. Rivera	

Date and time blower switched off (if respiration test):

Monitoring Point ID	Time	O ₂ (%)	CO ₂ (%)	Flam. (ppmv) C ₄	H ₂ S (%)	PID (ppmv) min max
SG-1	1018	1.4	12.5	7550	0.0	9999 ox 3 sec
SG-2	1022	4.9	7.1	3550	0.0	9999 ox 9 sec
SG-3	1024	2.6	8.0	2850	0.0	9999 ox 9 sec
SG-4	1031	7.9	5.1	840	0.0	1065
SG-5	1014	1.6	9.8	5900	0.0	9999 ox 4 sec
SG-6	1002	2.5	10.8	6150	0.0	9999 ox 5 sec
SG-7	954	13.8	5.3	1150	0.0	0.0
SG-8	1035	6.1	13.8	13750	0.0	9999 ox 3 sec
SG-9	1008	1.9	7.6	30	0.0	130
SG-10	1005	2.9	4.0	1800	0.0	363
SG-11	953	8.1	3.3	95	0.0	1.24
SG-12	941	10.8	6.4	3800	0.0	3526
Average value						

Comments/Observations: PID - 100 ppm

Blower is off. Notified Edwin Rosario, Francisco Burger, Francisco Alveo
(all left message). Notified Edgarito Cruz, chief at incinerator, he was
 in charge of the big pile now.

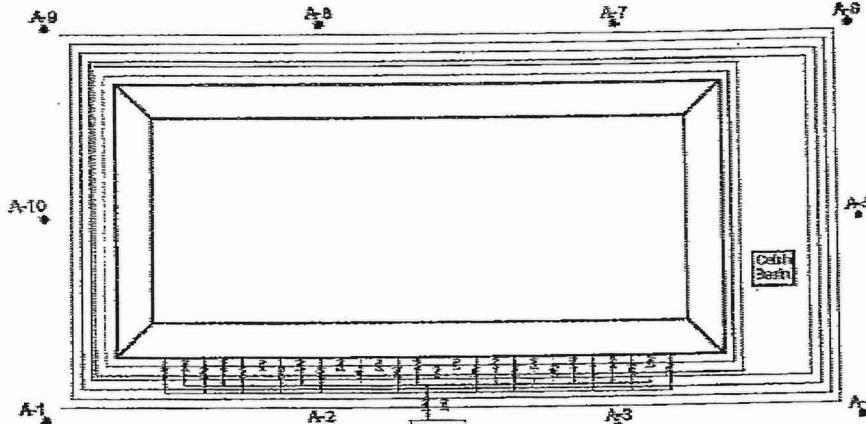
1245: Blower is on, when hearing BWS

Form 5 - Soil Moisture Monitoring Form

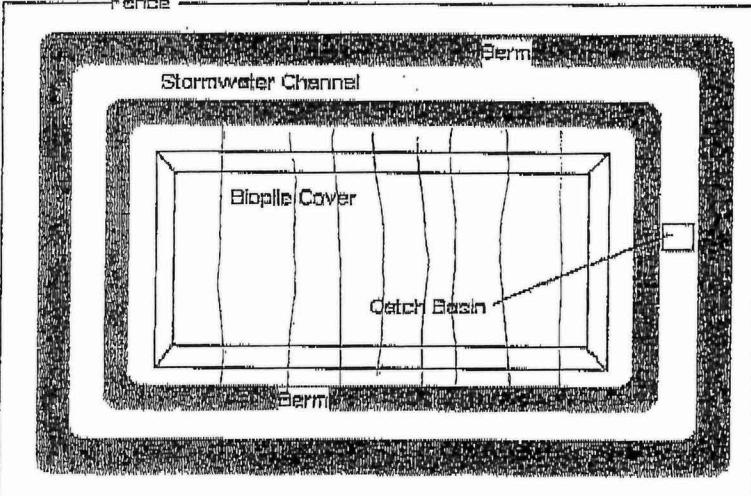
Bristol-Myers Squibb Manufacturing Company							Date: May 3, 06 9:36 AM
Moisture Probe	MP-1	MP-2	MP-3	MP-4	MP-5	MP-6	Readings by N.M.Rivera
Reading	99.0	98.8	99.0	99.8	98.8	99.0	
Moisture Probe	MP-7	MP-8	MP-9	MP-10	MP-11	MP-12	
Reading	98.9	99.3	98.9	98.9	98.4	98.8	
Moisture Probe	MP-13	MP-14	MP-15	MP-16	MP-17	MP-18	
Reading	98.6	99.5	98.8	98.5	98.6	98.8	
Soaker Hose switched on?		Yes	No				
If so, for how long?							
Other Information:							
Weather Conditions: sunny, cloudy							
Comments/Observations: Water measured from pipe - (13.5 in.) under bipiste Moisture meter check - 80.2.							

Form 6 - Ambient Air Monitoring Form

 Bristol-Myers Squibb Manufacturing Company

Date Mar 3, 06	Measure by N. M. Rivera	Weather Condition Sunny, cloudy	
Time 8:30	Wind Direction S-SE		
Location	PID Reading (ppm)	Odors (yes/no)	Use sketches below to approximate monitoring location and to indicate wind direction
A-1	0.0	NO	
A-2	0.0	NO	
A-3	0.0	NO	
A-4	0.0	NO	
A-5	0.0	NO	
A-6	0.0	NO	
A-7	0.0	NO	
A-8	0.0	NO	
A-9	0.0	NO	
A-10	0.0	NO	
OBSERVATIONS			<p>Blower is off. Notified Edwin Rosario (Fac Burger) Eco. Mgr. (call 3 via phone message) and discussed it with him. The said Blower is infected 7 days back, and that blower</p> <p><i>(Handwritten note: WAS WORKING yesterday)</i></p>

Form 4 - Biopile Visual Inspection Form

 Bristol-Myers Squibb Manufacturing Company		Date: May 3, 06 930 Time: 930 am →
Inspected by:		
Non Mechanical Equipment		
Cover		
Exposed soil	Yes / No <input checked="" type="radio"/>	
Rips/tears	Yes / No <input checked="" type="radio"/>	
Ropes/boards secure	Yes / No <input checked="" type="radio"/>	
if yes to any above indicate on drawing		
Fence		
Damaged	Yes / No <input checked="" type="radio"/>	
Holes	Yes / No <input checked="" type="radio"/>	
if yes to any above indicate on drawing		
Storm water channel		
Blockages	Yes / No <input checked="" type="radio"/>	
Integrity		
		
Non Mechanical Equipment, General Observations:		
Berms		
Integrity of toe		
Integrity of crest		
Mechanical Equipment		
Blower		
Valves	OK	
Gauges	OK	
Sump Pump	OK	

Form 4 - Biopile Visual Inspection Form

 Bristol-Myers Squibb Manufacturing Company		Date: May 10, 06
		Time: 12:15
		Inspected by: Nestor M. Rivera
Non Mechanical Equipment Cover		Fence

Form 3 - Soil Gas Monitoring Form

 Bristol-Myers Squibb Manufacturing Company		Date: May 10, 06				
		Sampled by: Nestor M. Rivera				
Date and time blower switched off (if respiration test):						
Monitoring Point ID	Time	O ₂ (%)	CO ₂ (%)	Flam. (ppmv) CH ₄	H ₂ S (%)	PID (ppmv) 1 min. (max)
SG-1	1108	16.4	3.6	1100	0.0	9999.02 4 sec
SG-2	1113	16.7	3.1	150	0.0	9999.02 30 sec
SG-3	1117	19.1	1.4	820	0.0	9999.02 4 sec
SG-4	1121	20.9	0.0	60	0.0	
SG-5	1105	18.2	2.3	590	0.0	9999.02 7 sec
SG-6	1056	19.3	1.2	390	0.0	9999.02 6 sec
SG-7	1044	20.9	0.0	40	0.0	0.0
SG-8	1059	20.9	0.0	0.0	0.0	0.0
SG-9	1126	16.3	3.5	1100	0.0	9999.02 4 sec
SG-10	1053	20.9	0.0	50	0.0	485 max 15 sec ↓
SG-11	1041	20.9	0.2	5	0.0	195
SG-12	1034	20.2	0.8	80.0	0.0	9999.02 7 sec
Average value		230.7/12 = 19.225				

Comments/Observations: Set CH₄ at 0.0. RKE Eagle meth self calibrated
5m. PWD - 100 ppm. vol.

Needs to cut grass in perimeter of seep outside locations. to keep the line 1/4" clear of vegetation

Form 5 - Soil Moisture Monitoring Form

Bristol-Myers Squibb Manufacturing Company							Date: May 19, 06 Readings By: Nestor M Rivera
Moisture Probe	MP-1	MP-2	MP-3	MP-4	MP-5	MP-6	
Reading	99.8	99.4	99.7	99.5	99.7	100.0	
Moisture Probe	MP-7	MP-8	MP-9	MP-10	MP-11	MP-12	
Reading	99.7	100.2	99.9	100.0	99.5	99.4	
Moisture Probe	MP-13	MP-14	MP-15	MP-16	MP-17	MP-18	
Reading	99.2	99.8	99.5	99.6	99.7	99.5	
Soaker Hose switched on?		Yes	No				
If so, for how long?							
Other Information:							
Weather Conditions: Sunny - 86°F							
Comments/Observations:							

Form 4 - Biopile Visual Inspection Form



Bristol-Myers Squibb Manufacturing Company

Date: May 10, 06

Time: 12:15

Inspected by: Nestor M. Rivera

Non Mechanical Equipment

Cover

Exposed soil

Yes / No

Rips/tears

Yes / No

Ropes/boards secure

Yes / No

If yes to any above indicate on drawing

Fence

Damaged

Yes / No

Holes

Yes / No

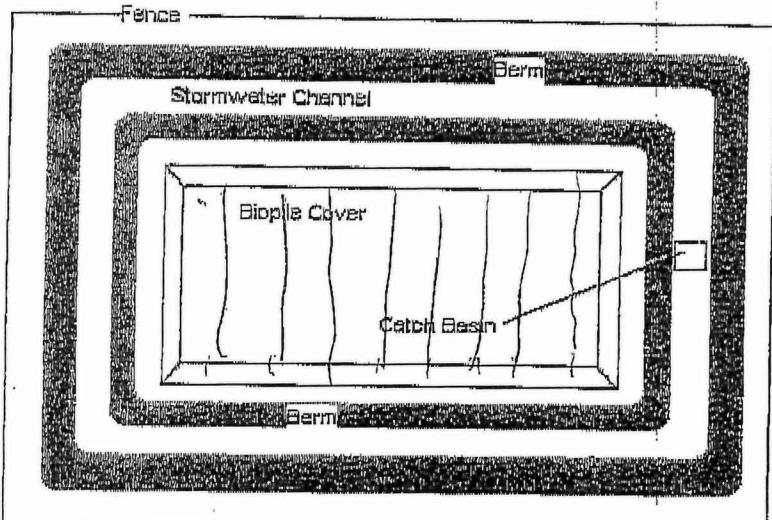
If yes to any above indicate on drawing

Storm water channel

Blockages

Yes / No

Integrity



Non Mechanical Equipment, General Observations:

Joint at T connector was repaired

Berms

Integrity of toe integer

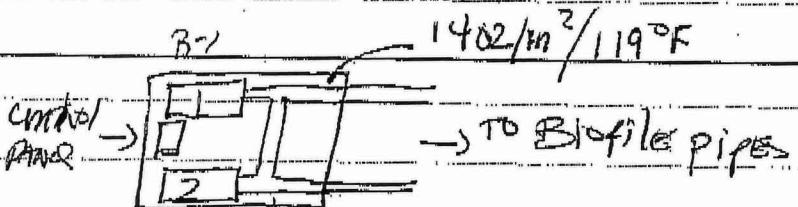
Integrity of crest integer

Mechanical Equipment

Blower working ok

Blower 1 operating

Valves OK



$P_1 \quad T_1$
 $1402/m^2 / 119^{\circ}F$

$P_2 \quad T_2$
 $10^{\circ}oz/in^2, 102^{\circ}F$

Gauges OK

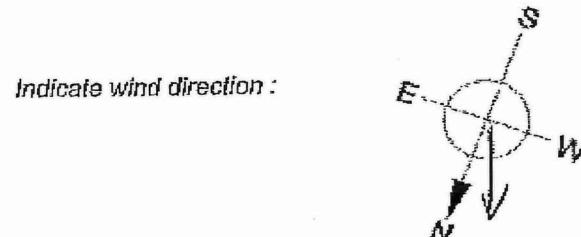
Sump Pump OK $T3.75 \text{ ft m}$
 Low

Form 6 - Ambient Air Monitoring Form



Bristol-Myers Squibb Manufacturing Company

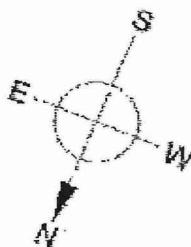
Date <u>May 16, 01</u>	Measure by <u>Nestor M. River</u>	Weather Condition <u>Sunny - ~ 86°F</u> <u>slightly windy</u>		
Time <u>1025</u>	Wind Direction <u>N NW</u>			
Location	PID Reading (ppm)	Odors (yes/no)	Use sketches below to approximate monitoring location and to indicate wind direction	
A-1	0.0	ND		
A-2	0.0	ND		
A-3	0.0	ND		
A-4	0.0	ND		
A-5	0.0	ND		
A-6	0.0	ND		
A-7	0.0	ND		
A-8	0.0	ND		
A-9	0.0	ND		
A-10	0.0	ND	OBSERVATIONS <u>13.75 in. water under biopile</u>	



Form 6 - Ambient Air Monitoring Form

Bristol-Myers Squibb Manufacturing Company H. Mulholland				
Date <u>May 17, 06</u>	Measure by <u>N. M. Rivera</u>	Weather Condition <u>Sunny, windy</u>		
Time <u>1600</u>	Wind Direction <u>N-NW</u>			
Location	PID Reading (ppm)	Odors (yes/no)	Use sketches below to approximate monitoring location and to indicate wind direction	
A-1	0.0	ND		
A-2	0.0	ND		
A-3	0.0	ND		
A-4	0.0	ND		
A-5	0.0	ND		
A-6	0.0	ND		
A-7	0.0	ND		
A-8	0.0	ND		
A-9	0.0	ND		
A-10	0.0	ND	OBSERVATIONS <u>PID - 100 ppm</u>	<u>14.5° in sun = 100 ppm</u>

Indicate wind direction :



Form 3 - Soil Gas Monitoring Form



Bristol-Myers Squibb Manufacturing Company

Date: May 17, 06

Sampled by: Nestor M. Rivera / Herb

Date and time blower switched off (if respiration test):

Multicheck

Monitoring Point ID	Time	O ₂ (%)	CO ₂ (%)	Flam. (ppmv) CH ₄	H ₂ S (%)	PID (ppmv) 1 min(max)
SG-1	1645	5.7	13.6	8,000	0.0	OR (4 sec)
SG-2	1648	14.9	6.6	570	0.0	7210 (5 sec)
SG-3	1653	19.8	1.0	510	0.0	2,159
SG-4	1657	20.9	0.1	45	0.0	151
SG-5	1638	19.0	2.3	670	0.0	5314
SG-6	1618	4.1	13.1	6,750	0.0	OR (4 sec)
SG-7	1619	14.8	4.7	1250	0.0	0.0
SG-8	1700	1.4	17.0	7200	0.0	OR (3 sec)
SG-9	1633	20.9	0.1	40	0.0	2535
SG-10	1631 7-14	20.4	0.7	290	0.0	506
SG-11	1646	20.5	0.7	60	0.0	1701
SG-12	1612	20.9	0.0	0.0	0.0	0.0
Average value						

Comments/Observations: PID-100 ppm / Multicheck self check box / Set CH₄ at 0 ppm before start.

Form 5 - Soil Moisture Monitoring Form

Bristol-Myers Squibb Manufacturing Company							Date: May 17, 06 Readings By: N. Rivera / + Mulholland
Moisture Probe	MP-1	MP-2	MP-3	MP-4	MP-5	MP-6	
Reading	99.5	99.8	99.7	99.5	99.3	99.3	
Moisture Probe	MP-7	MP-8	MP-9	MP-10	MP-11	MP-12	
Reading	99.4	99.8	99.2	99.3	99.1	99.4	
Moisture Probe	MP-13	MP-14	MP-15	MP-16	MP-17	MP-18	
Reading	99.2	100.1	99.8	99.0	99.1	99.1	
Soaker Hose switched on?	Yes	No					
If so, for how long?							
Other Information:	Metra auto cal 80.4						
Weather Conditions:	Sunny, N-N-E-Wind						
Comments/Observations:							

Form 3. BIOPILE VISUAL INSPECTION FORM



Bristol-Myers Squibb Manufacturing Company

Date: May 17, 06
Time: 1608

Inspected by: Nestor M Rivera

Non Mechanical Equipment**Cover**

- Exposed soil Yes / No
 Holes Yes / No
 rips/tears Yes / No

if yes to any above indicate on drawing

Fence

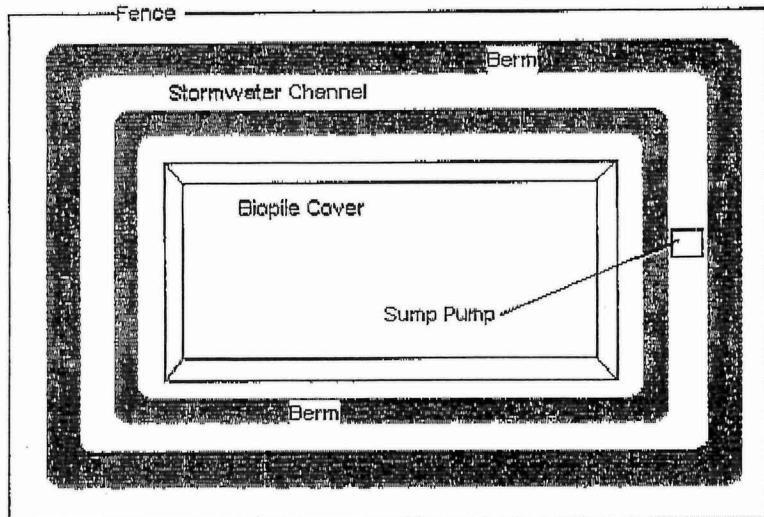
- damaged Yes / No
 holes Yes / No

if yes to any above indicate on drawing

Storm water channel

- blockages Yes / No

integrity

**Non Mechanical Equipment, General Observations:**

At B7-25 - water is observed coming out of hole.

Berms

Integrity of toe OK

Integrity of crest OK

Mechanical Equipment

Blower B1 - Working

Valves OK

Gauges P1 - 16 T 122°C

P2 - 14 T 122°C

Sump Pump low -



ACCUTEST.
Laboratories

CHAIN OF CUSTODY

2235 Route 130, Dayton NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accentest.com

Emergency & Rush TIA data available VIA LabLink

Sample Custody must be documented below each time samples change possession, including courier delivery.

Refrigerated by/Handler 1	<i>Nelson M. Brown</i>	Date/Time 5/17/06 19:00	Received by: 2	Refrigerated by: 2	Date/Time:	Received by: 2
Refrigerated by: 3		Date/Time:	Received by: 3	Refrigerated by: 4	Date/Time:	Received by: 4
Refrigerated by: 5		Date/Time:	Received by: 5	Custody Seal # <i>566</i>	Preserved where no teeth <input checked="" type="checkbox"/>	On ice <input checked="" type="checkbox"/> Cooler Temp. <input type="checkbox"/>

Form 6 - Ambient Air Monitoring Form



Bristol-Myers Squibb Manufacturing Company

Tuan '06 M. Bowen

Date	Measure by		Weather Condition
Time	Wind Direction		<i>Hot + Strong</i>
Location	PID Reading (ppm)	Odors (yes/no)	<p>Use sketches below to approximate monitoring location and to indicate wind direction</p> <p>Indicate wind direction :</p>
A-1	0	No	
A-2	0	No	
A-3	0	No	
A-4	0	No	
A-5	0	No	
A-6	0	No	
A-7	0	No	
A-8	0	No	
A-9	0	No	
A-10	0	No	OBSERVATIONS <i>SOIL SAMPLING FROM PILE PREVIOUS DAY</i>

14" liquid under biopile

Form 3 - Soil Gas Monitoring Form

 Bristol-Myers Squibb Manufacturing Company	Date: 7/31/06
	Sampled by: N. Rivera / M. Rivera

Date and time blower switched off (if respiration test):

Monitoring Point ID	Time	O ₂ (%)	CO ₂ (%)	Flam. (ppmv) CH ₄	H2S' (%)	PID (ppmv) 1 min (max)
SG-1	9:34	5.3	13.3	12750	0	2350 m/s
SG-2	9:37	18.7	2.4	470	0	9800 m/s
SG-3	9:41	19.1	1.0	peak at 1050 470	0	9800 m/s
SG-4	9:43	8.5	9.8	4050	0	6175 m/s
SG-5	9:40	15.6	4.8	peak at 830 320	0	2350 m/s
SG-6	9:49	11.7	7.5	670	0	9904 m/s
SG-7	9:22	14.9	4.3	850 increasing	0	9910 m/s
SG-8	9:45	0.9	18.0	4800	0	2900 m/s
SG-9	9:28	20.9	0	peak at 75 0	0	89
SG-10	9:25	20.3	0.4	peak at 50 0	0	127
SG-11	9:47	20.7	0.3	0	0	139
SG-12	9:42	16.5	3.8	960	0	9800 m/s
Average value						

Comments/Observations:

Form 3 BIOPILE VISUAL INSPECTION FORM



Bristol-Myers Squibb Manufacturing Company

Date: June 13, 06

Time: 10:55

Inspected by: N. Rivera

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Holes Yes / No

wraps/tears Yes / No

If yes to any above indicate on drawing

Fence

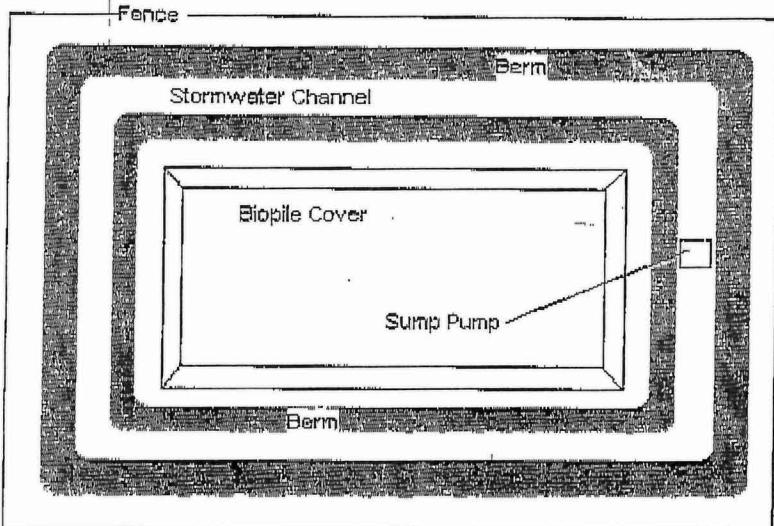
damaged Yes / No

holes Yes / No

If yes to any above indicate on drawing

Storm water channel

blockages Yes / No



integrity OK

Non Mechanical Equipment, General Observations:

OK / 13.5 inches of water under biopile

Berms

Integrity of toe OK

Integrity of crest DK

Mechanical Equipment

Blower # L OK

Valves OK ; except LY

Gauges P₁ 28P₂ 23 lb/in²T₁ 120 °FT₂ - 120 °F

Sump Pump off, off

Form 5 - Soil Moisture Monitoring Form

 Bristol-Myers Squibb Manufacturing Company						Date: June 13, 02 Readings by: 1655	
Moisture Probe	MP-1	MP-2	MP-3	MP-4	MP-5	MP-6	
Reading	100.4	100.4	100.5	100.7	100.2	100.4	
Moisture Probe	MP-7	MP-8	MP-9	MP-10	MP-11	MP-12	
Reading	99.9	101.4	100.4	100.1	99.7	99.6	
Moisture Probe	MP-13	MP-14	MP-15	MP-16	MP-17	MP-18	
Reading	99.9	100.6	100.6	99.7	99.8	99.6	
Soaker Hose switched on?		Yes	No				
If so, for how long?							
Other Information: First soil cor. 8816							
Weather Conditions: Sunny windy N NW							
Comments/Observations: BMS personnel inspecting system							

Form 6 - Ambient Air Monitoring Form



Bristol-Myers Squibb Manufacturing Company

Date <u>July 19, 2006</u>	Measure by <u>Nestor M. Rivera</u>		Weather Condition <u>Sunny / cloudy, some rain</u>
Time <u>9:50</u>	Wind Direction <u>N-NW</u>		
Location	PID Reading (ppm)	Odors (yes/no)	Use sketches below to approximate monitoring location and to indicate wind direction
A-1	0.0	NO	
A-2	0.0	NO	
A-3	0.0	NO	
A-4	0.0	NO	
A-5	0.0	NO	
A-6	0.0	NO	
A-7	0.0	NO	
A-8	0.0	NO	
A-9	0.0	NO	
A-10	0.1	NO	
			OBSERVATIONS <u>Sunny / cloudy, 93°F</u> <u>- AMAC passlock not present</u>

Form 3 - Soil Gas Monitoring Form



Bristol-Myers Squibb Manufacturing Company

Date: July 14, 2006

Sampled by: Nestor M. Rivera

Date and time blower switched off (if respiration test):

Monitoring Point ID	Time	O ₂ (%)	CO ₂ (%)	Flam. (ppmv) C ₄ H ₄	H ₂ S (%)	PID (ppmv) 1 min (max)
SG-1	10:35	17.4	2.3	400	0.0	1450 10 sec
SG-2	10:38	20.5	0.0	0.0	0.0	0.0
SG-3	10:44	20.3	0.0	0.0	0.0	0.0
SG-4	10:46	18.6	0.9	140	0.0	0.0
SG-5	10:32	18.9	1.0	154	0.0	0.0
SG-6	10:20	19.5	0.5	30	0.0	0.0
SG-7	10:15	20.6	0.0	0.0	0.0	0.0
SG-8	10:51	19.8	0.2	0.75	0.0	4580 6m 20 sec
SG-9	10:28	20.5	0.0	0.0	0.0	0.0
SG-10	10:17	20.7	0.0	0.0	0.0	0.0
SG-11	10:13	20.5	0.1	10.0	0.0	0.0
SG-12	9:55	20.5	0.0	0.0	0.0	0.0
Average value				R/K2 Eagle self diagnosis OK		

Comments/Observations:

PB-1 cal. 90.2 (100 ppm) 1) some tall vegetation in borrow pit perimeter
 2) shallow vegetation on top of embankments / slopes

Form 3 BIOPILE VISUAL INSPECTION FORM



Bristol-Myers Squibb Manufacturing Company

104 m2
Date: July 15, 06
Time: 11:02

Inspected by: Nestor M. Rivera

Non Mechanical Equipment

Cover

- Exposed soil Yes / No
 Holes Yes / No
 rips/tears Yes / No

if yes to any above indicate on drawing.

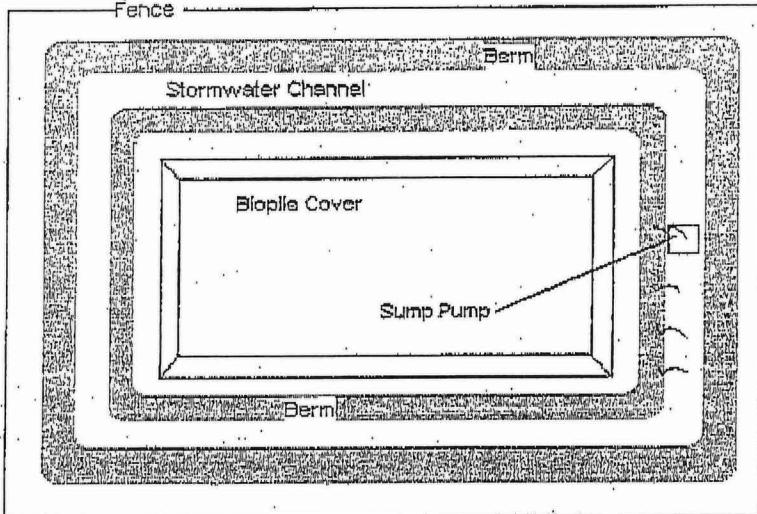
Fence

- damaged Yes / No
 holes Yes / No

if yes to any above indicate on drawing

Storm water channel

- blockages Yes / No

integrity *OK*

Non Mechanical Equipment, General Observations:

OK... Leachate 15'

Berms

Integrity of toe *OK*Integrity of crest *OK*

Mechanical Equipment

Blower #1 working

Valves *OK*Gauges P1-2L in H₂O P2 L4 in H₂O

Tb 52°C / 124°F Tr 51°C / 124°F

Sump Pump *Low*

Form 5 - Soil Moisture Monitoring Form

 Bristol-Myers Squibb Manufacturing Company						Date: July 13, 06 Readings by: Nestor M. Rivera
Moisture Probe	MP-1	MP-2	MP-3	MP-4	MP-5	MP-6
Reading	99.5	99.5	98.9	99.9	99.8	99.0
Moisture Probe	MP-7	MP-8	MP-9	MP-10	MP-11	MP-12
Reading	98.7	100.6	99.5	98.9	98.5	98.8
Moisture Probe	MP-13	MP-14	MP-15	MP-16	MP-17	MP-18
Reading	99.3	100.1 ANTS	99.9	98.8	98.5 ANTS	98.6
Soaker Hose switched on?		Yes	No			
If so, for how long?						
Other Information:						
Weather Conditions: Sunny / cloudy - 93°F						
Comments/Observations: Cal Check - 80.3						

Form 3 - Soil Gas Monitoring Form



Bristol-Myers Squibb Manufacturing Company

Date: August 14, 06

Sampled by: Nestor M River

Date and time blower switched off (if respiration test):

Monitoring Point ID	Time	O ₂ (%)	CO ₂ (%)	Flam. (ppmv) CH ₄	H ₂ S (%)	PID (ppmv) 1 min (max)
SG-8	1802	2.0 2.0 m	15.5 95.50	12,000	0.0	—
SG-2	1750	19.8	0.0	21	0.0	NOTE 1 —
SG-3	1755	19.4	0.0	5.0	0.0	—
SG-4	1758	13.5	4.8	2250	0.0	—
SG-5	1740	17.6	2.3	110	0.0	242
SG-6	1731	9.9	7.3	0.0	0.0	430
SG-7	1719	19.9	0.0	40	0.0	250 m
SG-8	1745	14.2	5.1	230	0.0	650
SG-9	1734	19.4	0.0	0.0	0.0	0.0
SG-10	1728	19.4	0.1	35	0.0	0.0
SG-11	1716	19.2	0.2	6.0	0	20
SG-12	1710	19.8	0.0	0.0	0.0	251
Average value						

Comments/Observations:

Meth self cal is OK

NOTE 1. WATER IN LINE ENTERED PID. SYSTEM FAILED

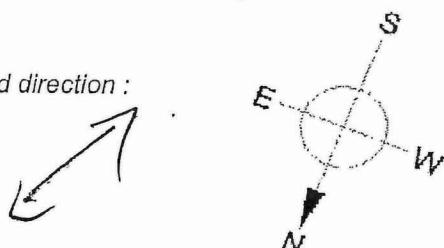
Form 6 - Ambient Air Monitoring Form



Bristol-Myers Squibb Manufacturing Company

Date 8/14/01	Measure by Neston Brown	Weather Condition sunny	
Time 1700	Wind Direction		
Location	PID Reading (ppm)	Odors (yes/no)	Use sketches below to approximate monitoring location and to indicate wind direction
A-1	0.0	NO	
A-2	0.0	NO	
A-3	0.0	NO	
A-4	0.0	NO	
A-5	0.0	NO	
A-6	0.0	NO	
A-7	0.0	NO	
A-8	0.0	NO	
A-9	0.0	NO	
A-10	0.0	NO	
			OBSERVATIONS PID cat (106 ppm)

Indicate wind direction :



Form 5 - Soil Moisture Monitoring Form

 Bristol-Myers Squibb Manufacturing Company					Date: <u>August 14, 06</u> Readings by: <u>Nestor M. River</u>		
Moisture Probe	MP-1	MP-2	MP-3	MP-4	MP-5	MP-6	
Reading	99.3	99.1	99.2	99.1	99.6	99.7	
Moisture Probe	MP-7	MP-8	MP-9	MP-10	MP-11	MP-12	
Reading	99.0	99.6	99.8	99.8	98.8	98.9	
Moisture Probe	MP-13	MP-14	MP-15	MP-16	MP-17	MP-18	
Reading	98.2	99.4	99.1	98.6	99.3	98.7	
Soaker Hose switched on?		Yes	No				
If so, for how long?							
Other Information:							
Weather Conditions:							
Comments/Observations: <u>sub cal. 80.4</u>							

Form 3 BIOPILE VISUAL INSPECTION FORM



Bristol-Myers Squibb Manufacturing Company

Date: August 14, 06

Time: 10:05

Inspected by: Nestor M. Rivera

Non Mechanical Equipment**Cover**

Exposed soil

Yes / No

Holes

Yes / No

wraps/tears

Yes / No

if yes to any above indicate on drawing

Fence

damaged

Yes / No

holes

Yes / No

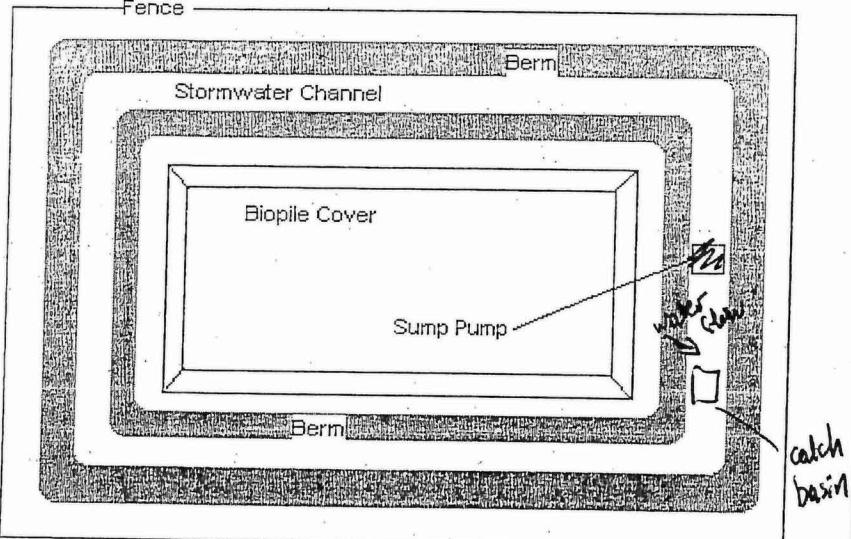
if yes to any above indicate on drawing

Storm water channel

blockages

Yes / No

integrity

**Non Mechanical Equipment, General Observations:**

OK. Water draining from biopile W side
into storm water sump.

Berms

Integrity of toe OK

Integrity of crest OK

Mechanical Equipment

Blower on Blower # 1

Valves OK

Gauges OK

P1 26 in H₂O

T1 122

P2 13 22 in H₂O

T2 ~120 °F

Sump Pump Siphon: 13.5 in

Form 3 - Soil Gas Monitoring Form

 Bristol-Myers Squibb Manufacturing Company		Date: September 8, 06 Sampled by: Nestor M. Rivera Carlos Torrs				
Date and time blower switched off (if respiration test):						
Monitoring Point ID	Time	O ₂ (%)	CO ₂ (%)	Flam. (ppmv) CH ₄	H ₂ S (%)	PID (ppmv) 1 min (max.)
SG-1	1702	18.3	2.1	95	0.0	80
SG-2	1707	18.8	2.1	55	0.0	54
SG-3	1708	20.9	0.1	0.0	0.0	0.0
SG-4	1710	18.8	1.4	460	0.0	0.0
SG-5	1700	19.5	1.2	45	0.0	60
SG-6	1651	17.5	2.4	100	0	45
SG-7	1644	20.9	0	0	0	4
SG-8	1713	15.3	4.0	750	0	0
SG-9	1653	20.9	0	45	0.0	2
SG-10	1647	20.9	0.1	80	0.1	1
SG-11	1641	20.9	0	0	0	18
SG-12	1635	20.9	0	0	0	73
Average value						
Comments/Observations: NO WATER draining from borehole w/ side						

Form 5 - Soil Moisture Monitoring Form

 Bristol-Myers Squibb Manufacturing Company						Date: September 8, 06 Readings by: N. Rivera / C. Torres	
Moisture Probe	MP-1	MP-2	MP-3	MP-4	MP-5	MP-6	
Reading	99.3	99.2	99.1	99.4	99.4	99.5	
Moisture Probe	MP-7	MP-8	MP-9	MP-10	MP-11	MP-12	
Reading	99.1	99.9	99.7	99.6	99.2	99.5	
Moisture Probe	MP-13	MP-14	MP-15	MP-16	MP-17	MP-18	
Reading	97.9	99.6	99.4	98.8	99.3	99.1	
Soaker Hose switched on?		Yes	No				
If so, for how long?							
Other Information:							
Weather Conditions: Sunny							
Comments/Observations:							

Form 3. BIOPILE VISUAL INSPECTION FORM



Bristol-Myers Squibb Manufacturing Company

Date: September 8, 06

Time: 16:30

Inspected by: Nestor M. Rivera / Carlos Tornos

Non Mechanical Equipment

Cover

Exposed soil

Yes / No

Holes

Yes / No

wraps/tears

Yes / No

if yes to any above indicate on drawing

Fence

damaged

Yes / No

holes

Yes / No

if yes to any above indicate on drawing

Storm water channel

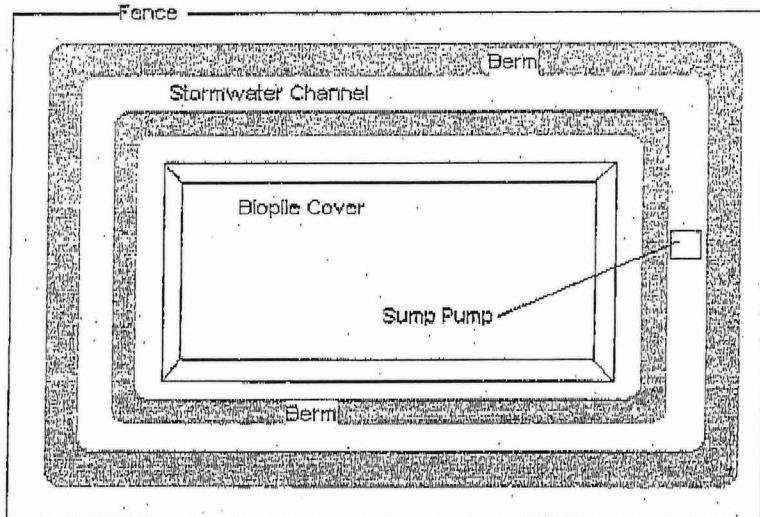
blockages

Yes / No

integrity

OK

New



Non Mechanical Equipment, General Observations:

Water: 8.5 ft

New plugs installed

at every pipe that blows
air into biopile

Berms

Integrity of toe

OK

Integrity of crest

OK

Mechanical Equipment

Blower

HDK

Valves

OK

Gauges

P1/T1

P2/T2

18 in H₂O / 124°F16 in H₂O 128°F

12-62/in 4

Sump Pump

602/m³

Low

Form 6 - Ambient Air Monitoring Form



Bristol-Myers Squibb Manufacturing Company

Date 8/10/06	Measure by NML/et		Weather Condition sunny 89-92°F
Time 1630	Wind Direction N-S/NE-SW		
Location	PID Reading (ppm)	Odors (yes/no)	Use sketches below to approximate monitoring location and to indicate wind direction
A-1	0.0	No	
A-2	0.0	No	
A-3	0.0	No	
A-4	0.0	No	
A-5	0.0	No	
A-6	0.0	No	
A-7	0.0	No	
A-8	0.0	No	
A-9	0.0	No	
A-10	0.0	No	
OBSERVATIONS			WIND
			PID - col 103 ppm

Form 3 - Soil Gas Monitoring Form



Bristol-Myers Squibb Manufacturing Company

Date: September 25, 2006

Sampled by: Nestor M Rivera

Date and time blower switched off (if respiration test):

Monitoring Point ID	Time	O ₂ (%)	CO ₂ (%)	Flam. (ppmv) C ₄ H ₄	H ₂ S (%)	PID (ppmv) 1 min (max)
SG-1	1526	20.1	0.7	80	0.0	0
SG-2 ³	1540	20.9	0.0	0.0	0.0	40
SG-3 ⁴	1546	20.9	0.3	190	0.0	10
SG-4 ²	1533	19.3	1.2	90	0.0	8
SG-5	1520	20.9	0.3	25	0.0	150
SG-6	1508	16.0	4	0.0	0.0	41
SG-7	1455	20.9	0.0	5.0	0.0	25
SG-8	1553	5.2	13.1	840	0.0	14
SG-9	1513	20.7	0.0	0.0	0.0	4
SG-10	1505	15.5	4.4	75	0.0	41
SG-11	1459	20.9	0.1	0.0	0.0	79
SG-12	1449	20.7	0.9	110	0.0	79
Average value				BV-26 - water came out in gushes when cap was removed		
Comments/Observations:	PCP at 116 ppm (100 ppm)					

Form 5 - Soil Moisture Monitoring Form

 Bristol-Myers Squibb Manufacturing Company						Date: September 25, 86 Readings by: Lester M. Hixson	
Moisture Probe	MP-1	MP-2	MP-3	MP-4	MP-5	MP-6	
Reading	98.7	98.7	98.6	98.9	99.1	98.9	
Moisture Probe	MP-7	MP-8	MP-9	MP-10	MP-11	MP-12	
Reading	98.5	99.5	99.3	98.9	98.4	98.8	
Moisture Probe	MP-13	MP-14	MP-15	MP-16	MP-17	MP-18	
Reading	-29.7 97.2	98.9	99.1	98.3	98.5	98.5	
Soaker Hose switched on?		Yes	No				
If so, for how long?		N/A					
Other Information:							
Weather Conditions: cloudy, raining red							
Comments/Observations: soft caliche - 803. Ants inside MP-17. At MP-13, got weird reading but for new cable but got some reading. Cable broken. It was "repaired"							

Form 6 - Ambient Air Monitoring Form



Bristol-Myers Squibb Manufacturing Company

Date Sept. 25, 06	Measure by N.M. Rivera		Weather Condition Cloudy, raining intermittently
Time 1435	Wind Direction NE		Use sketches below to approximate monitoring location and to indicate wind direction
Location	PID Reading (ppm)	Odors (yes/no)	
A-1	0.0	ND	
A-2	0.6	ND	
A-3	0.0	ND	
A-4	0.0	ND	
A-5	0.0	ND	
A-6	0.0	ND	
A-7	6.6	ND	
A-8	0.0	ND	
A-9	0.0	ND	
A-10	0.0	ND	
OBSERVATIONS Waste flowing from top linear and from the baselines, both into dikes. Residual soil is being accumulated below in the area.			

Form 3 BIOPILE VISUAL INSPECTION FORM



Bristol-Myers Squibb Manufacturing Company

Date: September 25, 06

Time:

Inspected by:

Nestor M. Rivera

Non Mechanical Equipment

Cover

Exposed soil

Yes / No

Holes

Yes / No

wraps/tears

Yes / No

if yes to any above indicate on drawing.

Fence

damaged

Yes / No

holes

Yes / No

if yes to any above indicate on drawing

Storm water channel

blockages

Yes / No

integrity

Soil exposed in drainage ditch

Non Mechanical Equipment, General Observations:

Lechate 14.5 in.

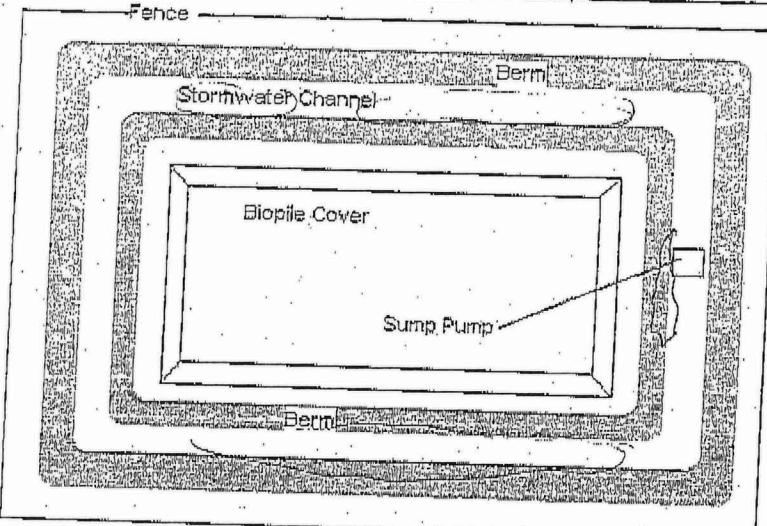
Berms

Integrity of toe *OK*Integrity of crest *OK*

Mechanical Equipment

Blower *OK Blower 14.1 in.*Valves *OK - BV H2L pushes water when removing cap*Gauges *T1/P1**T2/P2 in 10s**119/18**124/10*

Sump Pump



Form 4 - Biopile Visual Inspection Form



Bristol-Myers Squibb Manufacturing Company

Date: October 10, 06

Time: 10:00

Inspected by: Nestor M. Rivera

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

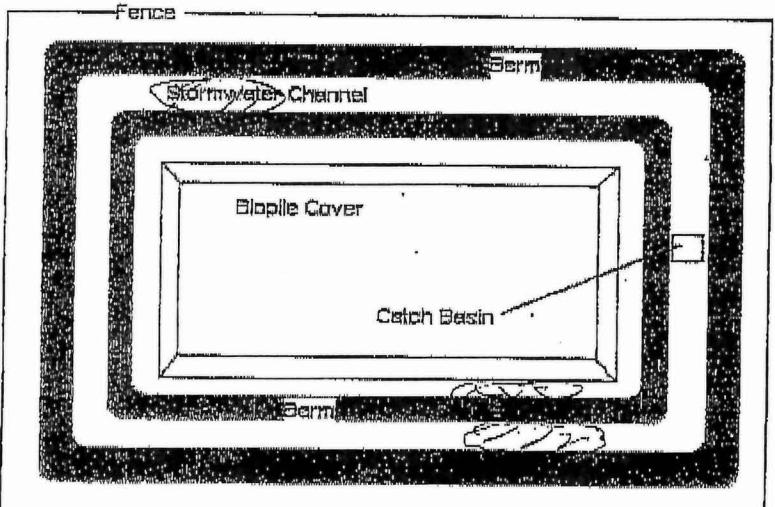
Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity



Non Mechanical Equipment, General Observations:

Berms

Integrity of toe ok. Not exposed in winter dikes

Integrity of crest

Mechanical Equipment

Blower Blower #1 on

Valves Open, no marked

Gauges T1/P1

124°F 18 in H₂O

T2/P2

130°F/10 in H₂O

Sump Pump low

Form 3 - Soil Gas Monitoring Form

 Bristol-Myers Squibb Manufacturing Company	Date: October 10, 06
	Sampled by: Nestor M. Rivera

Date and time blower switched off (if respiration test):

Monitoring Point ID	Time	O ₂ (%)	CO ₂ (%)	Flam. (ppmv) C ₄ H ₄	H ₂ S (%)	PID (ppmv) 1 min (max)
SG-1	1046	18.0	2.1	70	0.0	150
SG-2	1051	14.6	8.5	0.0	0.0	1
SG-3	1055	20.9	0.1	140	0.0	9
SG-4	1059	20.9	0.0	150	0.0	468/308c
SG-5	1038	19.4	1.2	45	0.0	817/358c
SG-6	1029	16.8	2.8	0.0	0.0	0.0
SG-7	1019	17.4	2.6	740	0.0	23
SG-8	1103	2.4	17.1	4750	0.0	2279 or 15s
SG-9	1035	20.9	0.0	0.0	0.0	1
SG-10	1025	20.9	0.0	0.0	0.0	2
SG-11	1016	20.9	0.1	0.0	0.0	21
SG-12	1008	18.5	1.5	250	0.0	67
Average value						

Comments/Observations: Methane sulfide - ox

Form 5 - Soil Moisture Monitoring Form

 Bristol-Myers Squibb Manufacturing Company						Date: October 10, 06 Readings by: Nestor M. Rivera	
Moisture Probe	MP-1	MP-2	MP-3	MP-4	MP-5	MP-6	
Reading	100.1	99.9	99.3	99.7	100.8	101.5	
Moisture Probe	MP-7	MP-8	MP-9	MP-10	MP-11	MP-12	
Reading	102.1	100.5	101.7	101.5	101.7	100.8	
Moisture Probe	MP-13	MP-14	MP-15	MP-16	MP-17	MP-18	
Reading	98.5	100.0	100.3	100.9	101.6	101.9	
Soaker Hose switched on?		Yes	No				
If so, for how long?							
Other Information:							
Weather Conditions: sunny/cloudy... light ^{sparsely} rain							
Comments/Observations: Self cal 10.9							



Client / Reporting Information
 Company Name: Anderson - M. Hollander
 Address: 110 Corporate Park Dr.
 City: White Plains State: NY
 Project Contact: MARK Bowen
 Phone #: 914-251-6400

Accutest Sample #	Field ID / Point of Collection
	BP-2D (6-6.5)
	BP-5D (6-6.5)
	TB10006

Turnaround Time (Business Days)

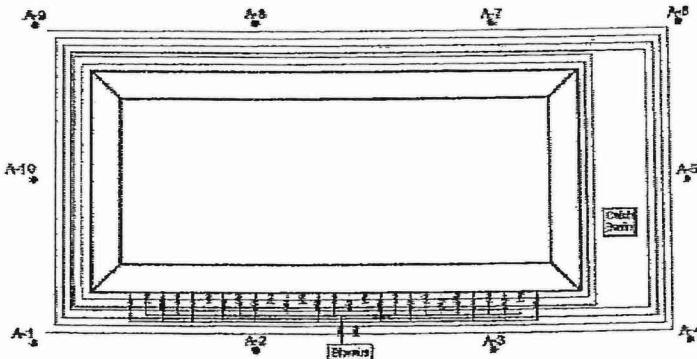
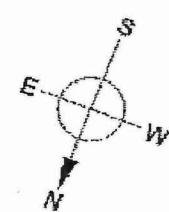
- Std. 15 Business Days Approved By _____
- 10 Day RUSH _____
- 5 Day RUSH _____
- 3 Day EMERGENCY _____
- 2 Day EMERGENCY _____
- 1 Day EMERGENCY _____
- Other _____

Emergency & Rush T/A data available VIA LabLink

Reinforced by Sampler: Nestor M. Rivera
 Requisitioned by: _____
 3 _____
 Reinforced by: _____
 5 _____

Form 6 - Ambient Air Monitoring Form

 Bristol-Myers Squibb Manufacturing Company

Date: Oct. 1906	Measure by: Nestor M. Rivera	Weather Condition: Sunny & some times cloudy. Slight rain.
Time: 950	Wind Direction: S-SW	Use sketches below to approximate monitoring location and to indicate wind direction
Location	PID Reading (ppm)	Odors (yes/no)
A-1	0.0	NO
A-2	0.0	NO
A-3	0.0	NO
A-4	0.0	NO
A-5	0.0	NO
A-6	0.0	NO
A-7	0.0	NO
A-8	0.0	NO
A-9	0.0	NO
A-10	0.0	NO
 Indicate wind direction: 		
OBSERVATIONS:		PID det. 102 (100 ppm) ppm



CHAIN OF CUSTODY

2235 Route 130, Dayton NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

FED-EX Tracking #	Bolide Order Control #
Accutest Quote #	Accutest Job #

Client / Reporting Information			Project Information			Requested Analysis			Matrix Codes DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge OI - OI UQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe LAB USE ONLY			
Company Name <i>Anderson - McPherson & Assoc.</i>	Project Name <i>GMLS - Biosipile</i>		Street									
Address <i>110 Corporate Park Drive</i>												
City <i>White Plains</i>	State <i>NY</i>	Zip <i>10604</i>	City <i>HuMAG</i>	State								
Project Contact <i>MARK Bowen</i>	E-mail	Project #										
Phone # <i>914-251-0400</i>	Fax # <i>914-251-1286</i>											
Sampler's Name	Client Purchase Order #											
Accutest Sample #	Field ID / Point of Collection	SUMMA #	Collection			# of bottles	Number of preserved Bottles					
		MECH#	Date	Time	Sampled By	Matrix	R	MUCH		HW304	HW404	MEDIUM
	<i>BY-2D (6-6.5)</i>		<i>10/10/01</i>	<i>418</i>	<i>NML</i>	<i>SO</i>	<i>4</i>			<i>></i>		
	<i>BY-5D (6-6.5)</i>		<i>10/10/01</i>	<i>955</i>	<i>NML</i>	<i>SO</i>	<i>4</i>			<i>></i>		
	<i>TB101006</i>		<i>10/10/01</i>	<i>4709</i>	<i>NML</i>	<i>WJ</i>	<i>2</i>	<i>></i>				

Turnaround Time (Business Days)	Data Deliverable Information	Comments / Remarks
<input type="checkbox"/> Std. 15 Business Days <input type="checkbox"/> 10 Day RUSH <input checked="" type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <input type="checkbox"/> Other _____	Approved By / Date: <input type="checkbox"/> Commercial "A" <input type="checkbox"/> Commercial "B" <input type="checkbox"/> NJ-Reduced <input checked="" type="checkbox"/> NJ Full <input type="checkbox"/> Other _____	<input type="checkbox"/> FULL CLP <input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Form(s) Commercial "A" = Results Only
Emergency & Rush T/A data available VIA LabLink		

Sample Custody must be documented below each time samples change possession, including courier delivery.					
Relinquished by Sampler <i>Nestor M. Rivera</i>	Date Time <i>10/10/01 1:12 PM</i>	Received by <i>2</i>	Relinquished by <i>2</i>	Date Time <i>2</i>	Received by <i>4</i>
Relinquished by <i>3</i>	Date Time <i>/</i>	Received by <i>3</i>	Relinquished by <i>4</i>	Date Time <i>/</i>	Received by <i>4</i>
Relinquished by <i>5</i>	Date Time <i>/</i>	Received by <i>5</i>	D-Sample Seal # <i>396</i>	Preserved where applicable <input type="checkbox"/>	Cooler Temp. <input type="checkbox"/>

10/10/2005 22:55 7877568069

NESTOR M RIVERA

PAGE 01

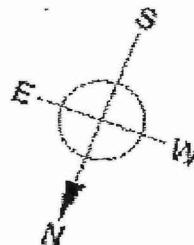
Form 6 - Ambient Air Monitoring Form



Bristol-Myers Squibb Manufacturing Company

Date December 25, 2006	Measure by Nestor M. Rivera		Weather Condition Sunny & hot, 91°F
Time 11:00	Wind Direction N-NW		
Location	PID Reading (ppm)	Odors (yes/no)	Use sketches below to approximate monitoring location and to indicate wind direction
A-1	0.0	NO	
A-2	0.0	NO	
A-3	0.0	NO	
A-4	0.0	NO	
A-5	0.0	NO	
A-6	0.0	NO	
A-7	0.0	NO	
A-8	0.0	NO	
A-9	0.0	NO	
A-10	0.0	NO	
OBSERVATIONS			$PID_{cal} = 102 \text{ ppm}$

Indicate wind direction:



Form 5 - Soil Moisture Monitoring Form

Bristol-Myers Squibb Manufacturing Company						Date: October 25, 06 Readings by: Nestor M. Rivera
Moisture Probe	MP-1	MP-2	MP-3	MP-4	MP-5	MP-6
Reading	100.7	101.0	100.5	102.0	102.1	104.4
Moisture Probe	MP-7	MP-8	MP-9	MP-10	MP-11	MP-12
Reading	101.1	104.5	103.3	104.4	100.3	100.0
Moisture Probe	MP-13	MP-14	MP-15	MP-16	MP-17	MP-18
Reading	99.9	101.4	102.3	103.0	102.0	100.0
Soaker Hose switched on?		Yes	No			
If so, for how long?		—				
Other Information:						
Weather Conditions: Sunny, 91°F						
Comments/Observations: Self Cal 86.4 (cal OK)						

Form 3 - Soil Gas Monitoring Form

Form 4 - Biopile Visual Inspection Form



Bristol-Myers Squibb Manufacturing Company

Date: October 25, 2006

Time: 1550

Inspected by: Nestor M. Rivera

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

If yes to any above indicate on drawing

Fence

Damaged Yes / No

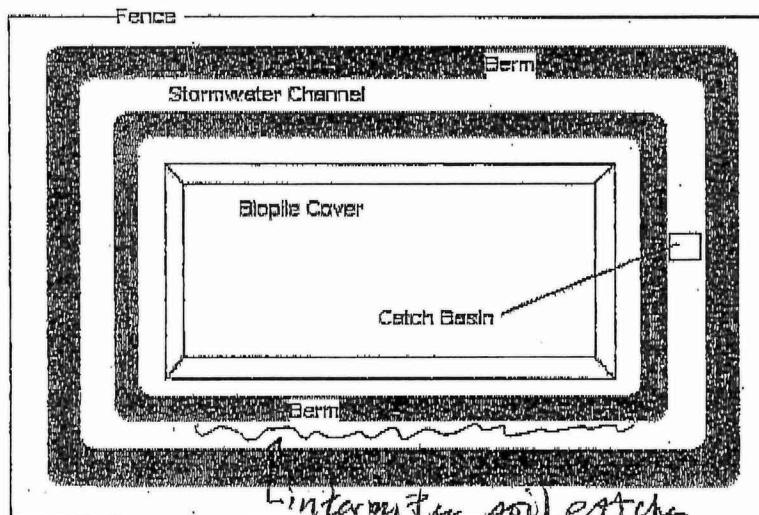
Holes Yes / No

If yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity



Non Mechanical Equipment, General Observations:

Leachate 14.25

Berms

Integrity of toe OK

Integrity of crest OK

Mechanical Equipment

Blower Blower 1

Valves	P1/T1 in H ₂ O	P2/T2
	6 120 °C	0.0 / 126

Gauges OK

Sump Pump Low

NOTE: WATER COMES OUT OF BV-26, BV-27 WHEN REMOVING THE PLUGS.

Form 6 - Ambient Air Monitoring Form

Bristol-Myers Squibb Manufacturing Company		
Date 10/10/2006	Measure by N. Rivera	
Time//DD	Wind Direction N-NE	
Location	PID Reading (ppm)	Odors (yes/no)
A-1	0.0	NO
A-2	0.0	NO
A-3	0.0	NO
A-4	0.0	NO
A-5	0.0	NO
A-6	0.0	NO
A-7	0.0	NO
A-8	0.0	NO
A-9	0.0	NO
A-10	0.0	NO
Weather Condition sunny, hot, humid, ~89-90 °F		
Use sketches below to approximate monitoring location and to indicate wind direction		
Indicate wind direction :		
PID D cal - 103 ppm (100 ppm cal gas)		
OBSERVATIONS		

Form 5 - Soil Moisture Monitoring Form

 Bristol-Myers Squibb Manufacturing Company						Date: November 9, 06 Readings by: Nestor M. Rivera	
Moisture Probe	MP-1	MP-2	MP-3	MP-4	MP-5	MP-6	
Reading	99.5	99.8	99.6	100.6	100.3	100.2	
Moisture Probe	MP-7	MP-8	MP-9	MP-10	MP-11	MP-12	
Reading	99.6	101.3	100.7	100.5	99.4	99.5	
Moisture Probe	MP-13	MP-14	MP-15	MP-16	MP-17	MP-18	
Reading	98.7	100.6	101.4	99.8	99.8	99.3	
Soaker Hose switched on?		Yes	No				
If so, for how long?		—					
Other Information:							
Weather Conditions: sunny / hot / humid / 89-90°F							
Comments/Observations: moisture sensor auto cal check. 80.3 (OK)							
MP-15 cable broken. Able to see cable inside the PVC pipe (from biopile)							

Form 4 - Biopile Visual Inspection Form



Bristol-Myers Squibb Manufacturing Company

Date: November 9, 2006
Time: 12:40

Inspected by: Nestor M. Rivera

Non Mechanical Equipment

Cover

- Exposed soil Yes / No
 Rips/tears Yes / No
 Ropes/boards secure Yes / No

if yes to any above indicate on drawing

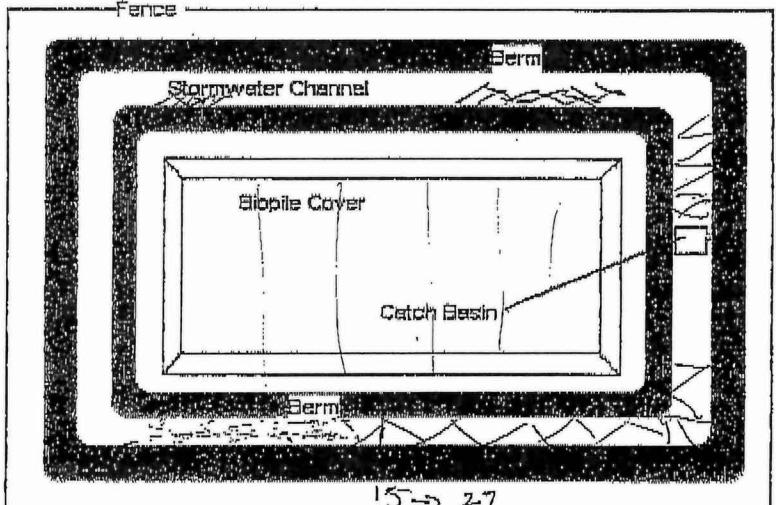
Fence

- Damaged Yes / No
 Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

- Blockages Yes / No
 Integrity



Symbol
 XX - NEW gravel XX - SEDIMENT observed

Non Mechanical Equipment, General Observations: Pipes 5-7 10 in, soil from biopile

Leachate - 13 in

Berms

Integrity of toe OKIntegrity of crest OK

Mechanical Equipment

Blower Blower #1 OKValves OK

Gauges <u>OK</u>	T1 - 122°F	T2 127°F
	P1 ~ 10 in/H ₂ O	P-L 0 in/H ₂ O

Sump Pump low/low

Form 3 - Soil Gas Monitoring Form

 Bristol-Myers Squibb Manufacturing Company				Date: November 9, 06 Sampled by: Nestor M. Rivera		
Date and time blower switched off (if respiration test):						
Monitoring Point ID	Time	O ₂ (%)	CO ₂ (%)	Flam. (ppmv) CH ₄	H ₂ S (%)	PID (ppmv) 1 min (max)
SG-1	1205	18.3	1.8	65	0.0	0.0
SG-2	1212	14.8	0.0	3.9	0.0	16
SG-3	1217	20.9	0.1	30	0.0	4
SG-4	1226	19.1	1.1	170	0.0	66
SG-5	1152	14.3	4.0 140	4300	0.0	854
SG-6	1142	18.3	1.6	6	0.0	55
SG-7	1133	18.3	1.2	600	0.0	292
SG-8	1230	2.9	13.9	25	0.0	814
SG-9	1153	20.9	0.0	0,0	0.0	0.0
SG-10	1146	20.9	6.0	6	0.0	3
SG-11	1129	20.9	0.0	0.0	0.0	3
SG-12	1125	18.1	2.2	330	0.0	34
Average value						
Comments/Observations: sunny / hot / ~90°F						

Form 4 - Biopile Visual Inspection Form



Bristol-Myers Squibb Manufacturing Company

Date: November 22, 06

Time: 1235

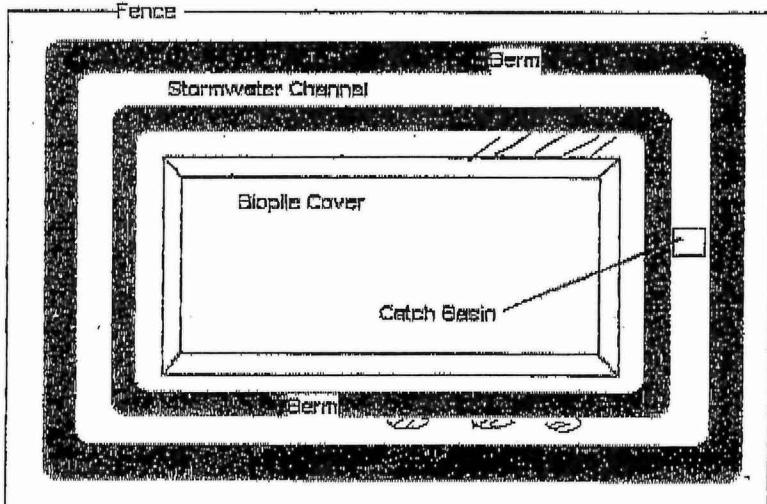
Inspected by: Nestor M. Rivera

Non Mechanical Equipment**Cover**Exposed soil Yes / NoRips/tears Yes / NoRopes/boards secure Yes / No

if yes to any above indicate on drawing

FenceDamaged Yes / NoHoles Yes / No

if yes to any above indicate on drawing

Storm water channelBlockages Yes / No**Integrity****Non Mechanical Equipment, General Observations:**

Leachate: 13 in.

BermsIntegrity of toe OKIntegrity of crest OK**Mechanical Equipment**Blower Blower #1 Fn**Valves**

Gauges	P1	T1	P2	T2
	4.0	112	0.0	115°F

Sump Pump low low

Form 3 - Soil Gas Monitoring Form

Bristol-Myers Squibb Manufacturing Company			Date: November 22, 06 Sampled by: Nestor M Rivera			
Date and time blower switched off (if respiration test):						
Monitoring Point ID	Time	O ₂ (%)	CO ₂ (%)	Flam. (ppmv) C ₄ H ₄	H ₂ S (%)	PID (ppmv) 1 min (max)
SG-1	1214	17.6	2.6	45	0.0	0.0
SG-2	1219	14.6	4.3	0.0	0.0	0.0
SG-3	1224	20.9	0.1	0.0	0.0	2.0
SG-4	1229	20.9	0.1	35	0.0	142
SG-5	1210	14.1	5.2	45	0.0	0.0
SG-6	1200	18.5	1.6	13	0.0	0.0
SG-7	1152	20.1	0.8	180	0.0	296
SG-8	1234	13.6	5.4	45	0.0	126
SG-9	1204	20.1	0.0	0.0	0.0	0.0
SG-10	1154	20.1	0.0	0.0	0.0	0.0
SG-11	1148	20.9	0.0	0	0.0	12
SG-12	1140	18.3	2.0	880	0.0	189
Average value						
Comments/Observations: Self check - OK						

Form 5 - Soil Moisture Monitoring Form

Bristol-Myers Squibb Manufacturing Company							Date: November 22, 06 Readings by Nestor M Rivera
Moisture Probe	MP-1	MP-2	MP-3	MP-4	MP-5	MP-6	
Reading	99.1	99.2	98.7	99.3	99.5	99.1	
Moisture Probe	MP-7	MP-8	MP-9	MP-10	MP-11	MP-12	
Reading	98.9	99.9	99.8	99.3	98.8	99.3	
Moisture Probe	MP-13	MP-14	MP-15	MP-16	MP-17	MP-18	
Reading	98.1	99.6	99.6	98.7	99.0	98.9	
Soaker Hose switched on?		Yes	No				
If so, for how long?							
Other Information:							
Weather Conditions: Sunny 98°F							
Comments/Observations: Cal #05							

Form 6 - Ambient Air Monitoring Form



Bristol-Myers Squibb Manufacturing Company

Date Nov. 22, 01	Measure by Nestor M. Rivera	Weather Condition Sunny 92°F										
Time 1145	Wind Direction NW-W											
Location	PID Reading (ppm)	Odors (yes/no)	Use sketches below to approximate monitoring location and to indicate wind direction									
A-1	0.0	NO										
A-2	0.0	NO										
A-3	0.0	NO										
A-4	0.0	NO										
A-5	0.0	NO										
A-6	0.0	NO										
A-7	0.0	NO										
A-8	0.0	NO										
A-9	0.0	NO										
A-10	0.0	NO										
Indicate wind direction:												
											NW	
OBSERVATIONS												
PID cal - 104 ppm (100 ppm detection limit)												

Appendix H
Offsite Waste Shipment Manifests

Demolition Debris Disposal

Manifest Summary

BFI Waste Systems

Ponce, Puerto Rico

Page 1

Date	Manifest ID	Volume (yd ³)
17-Jan-06	BJC-0001	20
17-Jan-06	BJC-0002	20
19-Jan-06	BJC-0003	20
19-Jan-06	BJC-0004	20
23-Jan-06	BJC-0005	20
23-Jan-06	BJC-0006	20
25-Jan-06	BJC-0007	20
26-Jan-06	BJC-0008	20
30-Jan-06	BJC-0009	20
30-Jan-06	BJC-0010	30
31-Jan-06	BJC-0011	20
31-Jan-06	BJC-0012	20
6-Feb-06	BJC-0013	30
7-Feb-06	BJC-0014	20
8-Feb-06	BJC-0015	20
8-Feb-06	BJC-0016	30
9-Feb-06	BJC-0017	20
10-Feb-06	BJC-0018	20
10-Feb-06	BJC-0019	30
13-Feb-06	BJC-0020	20
16-Feb-06	BJC-0021	30
20-Feb-06	BJC-0022	40 ft
20-Feb-06	BJC-0023	40 ft
20-Feb-06	BJC-0024	40 ft
20-Feb-26	BJC-0025	40 ft
21-Feb-06	BJC-0026	40 ft
21-Feb-06	BJC-0027	40 ft
21-Feb-06	BJC-0028	40 ft
22-Feb-06	BJC-0029	40 ft
22-Feb-06	BJC-0030	40 ft
22-Feb-06	BJC-0031	40 ft
22-Feb-06	BJC-0032	40 ft
24-Feb-06	BJC-0033	40 ft
24-Feb-06	BJC-0034	40 ft
27-Feb-06	BJC-0035	40 ft
8-Mar-06	BJC-0037	20
9-Mar-06	BJC-0038	20
9-Mar-06	BJC-0039	20
21-Mar-06	BJC-0040	20
21-Mar-06	BJC-0041	20
22-Mar-06	BJC-0042	20
21-Apr-06	BJC-0043	20
22-Apr-06	BJC-0044	20

**Impacted Soil Disposal
Manifest Summary
BFI Waste Systems
Ponce, Puerto Rico**
Page 1

Date	Manifest ID	Volume (yd ³)
27-Feb-06	BJC-0036	20

**Treated Soil Disposal
Manifest Summary
Waste Management Landfill
Humacao, Puerto Rico**
Page 1

JCA Manifest #	R4 Conduce #	Date	Dumpster #	Dumpster yds ³	Truck #	Truck yds ³	Load Type
ICM-B-021	6773	2/26/2007	ICM-0012			28.6	Soil
ICM-B-023	7429	2/28/2007	ICM-0011		23477-R	39	Soil
ICM-B-024	7387	2/28/2007	R4-20-1024	20			Soil
ICM-B-026	7430	2/28/2007	ICM-0011		23477-R	39	Soil
ICM-B-027	7389	2/28/2007	R4-20-1024	20			Soil
ICM-B-029	7431	2/28/2007	ICM-0011		23477-R	39	Soil
ICM-B-030	7390	2/28/2007	R4-20-1024	20			Soil
ICM-B-031	7427	2/26/2007	ICM-0011		23477-R	39	Soil
ICM-B-032	7432	2/28/2007	ICM-0011		23477-R	39	Soil
ICM-B-033	7433	2/28/2007	ICM-0011		23477-R	39	Soil
ICM-B-034	7434	3/1/2007	ICM-0011		23477-R	39	Soil
ICM-B-035	7435	3/1/2007	ICM-0011		23477-R	39	Soil
ICM-B-036	7436	3/1/2007	ICM-0011		23477-R	39	Soil
ICM-B-037	7437	3/1/2007	ICM-0011		23477-R	39	Soil
ICM-B-038	7438	3/1/2007	ICM-0011		23477-R	39	Soil
ICM-B-039	7439	3/2/2007	ICM-0011		23477-R	39	Soil
ICM-B-040	7440	3/2/2007	ICM-0011		23477-R	39	Soil
ICM-B-042	7391	2/28/2007	R4-20-1024	20			Soil
ICM-B-044	7392	2/28/2007	R4-20-1024	20			Soil
ICM-B-045	7394	2/28/2007	R4-20-1024	20			Soil
ICM-B-047	7393	2/28/2007	R4-20-1024	20			Soil
ICM-B-050	7396	3/1/2007	R4-20-1021	20			Soil
ICM-B-052	7261	3/1/2007	R4-20-1017	20			Soil
ICM-B-053	7263	3/1/2007	R4-20-1017	20			Soil
ICM-B-054	7399	3/1/2007	R4-20-1021	20			Soil
ICM-B-055	7247	3/1/2007	R4-20-1017	20			Soil
ICM-B-056	7246	3/1/2007	R4-20-1021	20			Soil
ICM-B-057	7398	3/1/2007	R4-20-1021	20			Soil
ICM-B-058	7248	3/1/2007	R4-20-1017	20			Soil
ICM-B-059	7401	3/1/2007	R4-20-1021	20			Soil
ICM-B-060	7251	3/1/2007	R4-20-1017	20			Soil
ICM-B-061	7402	3/1/2007	R4-20-1021	20			Soil
ICM-B-062	7397	3/1/2007	R4-20-1017	20			Soil
ICM-B-063	7404	3/2/2007	R4-20-1009	20			Soil
ICM-B-065	7406	3/2/2007	R4-20-1009	20			Soil
ICM-B-067	7405	3/2/2007	R4-20-1009	20			Soil
ICM-B-068	7441	3/2/2007	ICM-0011		23477-R	39	Soil
ICM-B-069	7407	3/2/2007	R4-20-1009	20			Soil
ICM-B-071	7442	3/2/2007	ICM-0011		23477-R	39	Soil
ICM-B-072	7408	3/2/2007	R4-20-1009	20			Soil
ICM-B-073	7446	3/2/2007	R4-20-1014	20			Soil
ICM-B-074	7409	3/2/2007	R4-20-1009	20			Soil
ICM-B-075	7468	3/2/2007	R4-30-1014	20			Soil
ICM-B-076	7443	3/5/2007	R4-20-1009	20			Soil

Treated Soil Disposal
Manifest Summary
Waste Management Landfill
Humacao, Puerto Rico
Page 2

JCA Manifest #	R4 Conduce #	Date	Dumpster #	Dumpster yds ³	Truck #	Truck yds ³	Load Type
ICM-B-077	7451	3/5/2007	ICM-0011		23477-R	39	Soil
ICM-B-078	7413	3/5/2007	R4-20-1009	20			Soil
ICM-B-079	7452	3/5/2007	ICM-0011		23477-R	39	Soil
ICM-B-080	7469	3/5/2007	R4-20-1014	20			Soil
ICM-B-081	7410	3/5/2007	R4-20-1009	20			Soil
ICM-B-082	7463	3/5/2007	ICM-0011		23477-R	39	Soil
ICM-B-083	7467	3/5/2007	R4-20-1014	20			Soil
ICM-B-084	7414	3/5/2007	R4-20-1021	20			Soil
ICM-B-085	7464	3/5/2007	ICM-0011		23477-R	39	Soil
ICM-B-086	7450	3/5/2007	R4-20-1014	20			Soil
ICM-B-087	7447	3/5/2007	R4-20-1021	20			Soil
ICM-B-088	7465	3/6/2007	ICM-0011		23477-R	39	Soil
ICM-B-089	7597	3/6/2007	R4-20-1021	20			Soil
ICM-B-090	7477	3/6/2007	ICM-0011		23477-R	39	Soil
ICM-B-091	7598	3/6/2007	R4-20-1021	20			Soil
ICM-B-092	7478	3/6/2007	ICM-0011		23477-R	39	Soil
ICM-B-093	7599	3/6/2007	R4-20-1021	20			Soil
ICM-B-094	7479	3/6/2007	ICM-0011		23477-R	39	Soil
ICM-B-095	7596	3/6/2007	R4-20-1021	20			Soil
ICM-B-096	7480	3/6/2007	ICM-0011		23477-R	39	Soil
ICM-B-097	7595	3/6/2007	R4-20-1021	20			Soil
ICM-B-098	7482	3/7/2007	ICM-0011		23477-R	39	Soil
ICM-B-100	7483	3/7/2007	ICM-0011		23477-R	39	Soil
ICM-B-102	7484	3/7/2007	ICM-0011		23477-R	39	Soil
ICM-B-103	7592	3/7/2007	R4-20-1021	20			Soil
ICM-B-105	7485	3/7/2007	ICM-0011		23477-R	39	Soil
ICM-B-106	7593	3/7/2007	R4-20-1021	20			Soil
ICM-B-108	7486	3/7/2007	ICM-0011		23477-R	39	Soil
ICM-B-109	7594	3/7/2007	R4-20-1021	20			Soil
ICM-B-111	7487	3/7/2007	ICM-0011		23477-R	39	Soil
ICM-B-112	7591	3/7/2007	R4-20-1021	20			Soil
ICM-B-114	7488	3/8/2007	ICM-0011		23477-R	39	Soil
ICM-B-115	7588	3/8/2007	R4-20-1021	20			Soil
ICM-B-117	7489	3/8/2007	ICM-0011		23477-R	39	Soil
ICM-B-118	7589	3/8/2007	R4-20-1021	20			Soil
ICM-B-120	7590	3/8/2007	R4-20-1021	20			Soil
ICM-B-121	7490	3/8/2007	ICM-0011		23477-R	39	Soil
ICM-B-123	7587	3/8/2007	R4-20-1021	20			Soil
ICM-B-124	7491	3/8/2007	ICM-0011		23477-R	39	Soil
ICM-B-126	7586	3/8/2007	R4-20-1021	20			Soil
ICM-B-127	7492	3/8/2007	ICM-0011		23477-R	39	Soil
ICM-B-131	7550	3/13/2007	R4-20-1021	20			Soil
ICM-B-132	7581	3/13/2007	R4-20-1021	20			Soil
ICM-B-133	7551	3/13/2007	R4-20-1021	20			Soil
ICM-B-134	7578	3/13/2007	R4-20-1021	20			Soil
ICM-B-136	7903	3/15/2007	R4-20-1021	20			Soil

**Treated Soil Disposal
Manifest Summary
Waste Management Landfill
Humacao, Puerto Rico
Page 3**

JCA Manifest #	R4 Conduce #	Date	Dumpster #	Dumpster yds ³	Truck #	Truck yds ³	Load Type
ICM-B-137	7902	3/15/2007	R4-20-1021	20			Soil
ICM-B-138	7560	3/15/2007	R4-20-1021	20			Soil
ICM-B-139	7558	3/15/2007	R4-20-1021	20			Soil
ICM-B-140	7559	3/15/2007	R4-20-1021	20			Soil
ICM-B-143	7889	3/16/2007	R4-20-1021	20			Soil
ICM-B-144	7900	3/16/2007	R4-20-1021	20			Soil
ICM-B-151	7557	3/23/2007	R4-20-1013	20			Soil
ICM-B-155	7890	3/23/2007	R4-20-1013	20			Soil
ICM-B-156	7885	3/23/2007	R4-20-1013	20			Soil

NOTE: Dumpster yds3 and truck yds3 indicate capacity
of unit and not volume of soil transported.

Appendix I
Soil Sampling Laboratory Results
(On CD-ROM)